Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



United States Department of Agriculture

Forest Service

Intermountain Forest and Range Experiment Station Ogden, UT 84401

General Technical Report INT-140

March 1983



States Cary A Cavity-Nesting Bird Bibliography— Including Related Titles on Forest Snags, Fire, Insects, Disease, and Decay



THE AUTHORS

WILLIAM C. FISCHER is a research forester for the Fire Effects and Use Research and Development Program at the Northern Forest Fire Laboratory. His current assignment is to identify and apply existing knowledge to improve the practice of fire management, with special emphasis on fire effects, fire use, and fuel management. He received his B.S. degree in forestry from the University of Michigan, Ann Arbor.

B. RILEY McCLELLAND is an associate professor of forestry at the University of Montana. He recently completed a major study of the relationships between cavitynesting birds, forest snags, and decay in western Montana larch/Douglas-fir forests. This bibliography is a byproduct of that study. Dr. McClelland earned his B.S. and M.S. degrees at Colorado State University, Fort Collins. He was awarded a Ph.D. by the University of Montana, Missoula, in 1977. Dr. McClelland also a National Park Service ecologist is currently studying the bald eagle at Glacier National Park, MT.

RESEARCH SUMMARY

This report provides an index to the contents of more than 1,700 references pertaining to cavity-nesting birds and the related topics of forest snags, fire, insects, disease, and decay.

The list of titles is arranged alphabetically by author and each title is assigned a reference number. The reference number identifies the title in the indexes provided.

The indexes include a forest snag index; a fire, insect, disease, and decay index; a cavity-nesting bird index; and a geographic index.

The cavity-nesting bird index contains separate sections for each of 86 different bird species. Keywords used are: habitat management, habitat, foraging behavior, breeding, nesting, nest and roost trees, nest boxes and houses, biology, ecology, life history, relations with other fauna, territory, distribution, population density, status, identification, taxonomy, and damage.

USDA, National Agricultural Library NAL Bldg 10301 Baltimore Blvd Beltsville, MD 20705-2351

ACKNOWLEDGMENT

The authors gratefully acknowledge assistance in literature searching and keywording at various stages of this project from Dr. Catherine M. Ream, University of Montana research associate, and Michael B. Hartkorn, who was temporarily employed as a forestry technician at the Northern Forest Fire Laboratory.

CONTENTS

	Page		Page
Introduction	1	Elf Owl	58
The Bibliography	2	Barred Owl	58
The List of Titles and Reference Numbers	2	Spotted Owl	58
The Subject Matter Indexes	2	Boreal Owl	59
The Forest Snag Index	2	Saw-Whet Owl	59
The Fire, Insect, Disease, and Decay Index	2	Chimney Swift	59
The Cavity-Nesting Bird Index	2	Vaux's Swift	59
The Geographic Index	2	Coppery-Tailed Trogon	60
How to Use the Bibliography	2	Woodpeckers—General Information	60
Finding Current Literature	2	Common Flicker	60
List of Titles and Reference Numbers	3	Pileated Woodpecker	60
Forest Snag Index		Red-Bellied Woodpecker	61
Snags—General	53	Golden-Fronted Woodpecker	61
Snag Management and Bird Use	53	Gila Woodpecker	61
Snag-Fire Control Relationships	53	Red-Headed Woodpecker	62
Snag Removal and Use by Man	53	Acorn Woodpecker	62
•		Lewis' Woodpecker	62
Snag Longevity	53	•	63
Fire, Insect, Disease, and Decay Index		Yellow-Bellied Sapsucker	
Fire Effects on Cavity-nesting Birds	53	Williamson's Sapsucker	63
Insect-Cavity-nesting Bird Relationships	53	Hairy Woodpecker	63
Nest Tree Disease and Decay	53	Downy Woodpecker	64
Cavity-Nesting Bird Index	53	Ladder-Backed Woodpecker	64
General Information	53	Nuttall's Woodpecker	64
Habitat Management	53	Arizona Woodpecker	64
Land Use Impacts on Habitat	53	Red-Cockaded Woodpecker	64
Habitat	53	White-Headed Woodpecker	65
Foraging Behavior	53	Black-Backed Three-Toed Woodpecker	65
Breeding, Nesting	53	Northern Three-Toed Woodepcker	65
Nest and Roost Trees	53	Ivory-Billed Woodpecker	66
Nests	53	Sulphur-Bellied Flycatcher	66
Biology, Ecology, Life History	54	Great Crested Flycatcher	66
Population Densities, Distribution, Diversity	54	Wied's Crested Flycatcher	66
Urban-Area Habitat	54	Ash-Throated Flycatcher	66
Relation to Agriculture	54	Olivaceous Flycatcher	67
Damage	54	Western Flycatcher	67
Relations with Other Fauna	54	Violet-Green Swallow	67
Study Methods	54	Tree Swallow	67
Literature Reviews and Bibliographies	54	Rough-Winged Swallow	68
Checklists	54	Purple Martin	68
Extinct Species	54	Black-Capped Chickadee	68
Species Specific Information	54	Carolina Chickadee	69
Black-Bellied Whistling Duck	54	Mexican Chickadee	69
Wood Duck	54	Mountain Chickadee	69
Common Goldeneye	54		69
	55	Gray-Headed Chickadee	69
Barrow's Goldeneye	55 55	Boreal Chickadee	70
Bufflehead		Chestnut-Backed Chickadee	
Harlequin Duck	55 55	Tufted Titmouse	70
Hooded Merganser	55 55	Plain Titmouse	70
Common Merganser	55 56	Bridled Titmouse	70
Turkey Vulture	56 50	White-Breasted Nuthatch	71
Black Vulture	56 56	Red-Breasted Nuthatch	71
American Kestrel	56 57	Brown-Headed Nuthatch	71
Barn Owl	57 57	Pygmy Nuthatch	72
Screech Owl	57	Brown Creeper	72
Whiskered Owl	57	House Wren	72
Flammulated Owl	57	Brown-Throated Wren	73
Hawk Owl	57	Winter Wren	73
Pygmy Owl	58	Bewick's Wren	73
Ferruginous Owl	58	Carolina Wren	73

Eastern Bluebird	74
Western Bluebird	74
Mountain Bluebird	74
Starling	75
Crested Myna	75
Prothonotary Warbler	75
Lucy's Warbler	75
House Sparrow	75
European Tree Sparrow	76
House Finch	76
Geographic Index	76
Asia	76
Africa	76
Australia	76
Europe	76
North America	77
South America	79
Unclassified as to Geographic Area	79

A Cavity-Nesting Bird Bibliography— Including Related Titles on Forest Snags, Fire, Insects, Disease, and Decay

William C. Fischer B. Riley McClelland

INTRODUCTION

This bibliography resulted from a study of the ecological relationships between cavity-nesting birds, forest snags, and decay in western Montana larch-fir forests. ¹ Its Purpose is twofold: (1) to help forest managers find information they can use to prescribe forestry practices that are sensitive to the needs of cavity-nesting birds, and (2) to help researchers identify existing knowledge gaps.

Cavity-nesting birds (also called hole-nesting birds) are those that either excavate nest holes in trees or nest in existing holes created by disease, decay, mechanical injury, or other cavity-nesters. Eighty-five bird species have been identified as cavity-nesters in North American forests.² This important group of forest inhabitants includes woodpeckers, flycatchers, swallows, chickadees, titmice, nuthatches, wrens, bluebirds, swifts, hawks, owls, and ducks.

Forest snags and live trees with heartwood decay are prime habitat for cavity-nesting birds. Such snags and cull trees are scattered throughout most forests, either as isolated invididuals or in groups. Fire and insects create large numbers of snags, especially in western coniferous forests. Lightning, wind, and disease also create significant numbers of snags. Decay is usually prerequisite to successful hole excavation by cavity-nesting birds.

Traditionally, snags have been discriminated against in American forestry. In the West, they were generally considered to be prime targets for firestarting lightning strikes. More recently, snag removal has been encouraged for esthetic reasons and to increase fiber utilization. Currently, the increasing demand of dead wood for paper, particle board, house logs, and firewood make it both possible and practical for a forest manager to completely remove all snags from many forest stands. Total snag removal could eliminate most cavity-nesting birds from affected stands.

As a general rule, most foresters would choose to maintain or increase present populations of cavity-nesting birds in the forests they manage. This desire reflects an appreciation of the insect-feeding habits of these birds as well as an awareness that "they (the birds) enliven the forest and please the eye."

The recent surge in the literature on this subject reflects current interest on the part of forest managers to consider the needs of cavity-nesting birds in their forestry practices. This bibliography is designed to allow the interested forest manager to more easily access this literature.

²Scott, V. E., K. E. Evans, D. R. Patton, and C. P. Stone. 1977. Cavity-nesting birds of North American Forests. USDA For. Serv. Agric. Handb. 5111, 112 p. Washington, D.C.

³Fisher, W. R. 1907. Dr. Schlich's Manual of Forestry, vol. 4. Bradbury, Agnew and Co., London.

¹McClelland, B. R. 1977. Relationships between hole-nesting birds, forest snags, and decay in western larch-Douglas-fir forests of the Northern Rocky Mountains. Ph, D. diss. Univ. Mont., Missoula. 428 p.

THE BIBLIOGRAPHY

The bibliography is organized in three major parts: the numbered list of titles, the subject matter indexes, and the geographic index.

The List of Titles and Reference Numbers

The list of titles is arranged alphabetically and is numbered consecutively.

The Subject Matter Indexes

Three subject matter indexes are provided. The first deals with forest snags; the second with fire, insects, desease, and decay; and the third with cavity-nesting birds.

THE FOREST SNAG INDEX

This index consists of five categories or keywords:

Snags-general

Snag management and bird use

Snag-fire control relationships

Snag removal and use by man

Snag longevity

The key word "snags—general" is a summary category. All of the titles relating to snags are listed after this keyword even though they may also be listed after other keywords in this index. The keyword "snag removal and use by man" refers to use of snags by humans for other than wildlife related uses.

THE FIRE, INSECT, DISEASE, AND DECAY INDEX

The categories or keywords included in this index are:
Fire effects on cavity-nesting birds
Insect-cavity-nesting bird relationships

Nest tree disease and decay

THE CAVITY-NESTING BIRD INDEX

This index has 88 major divisions. The first division is an index of references that contain general information on cavitynesting birds. It is not species specific. This index is labeled "cavity-nesting birds – general information" and the keywords are:

Habitat management

Land use impacts on habitat

Habitat

Foraging behavior

Breeding, nesting

Nest and roost trees

Nests

Biology, ecology, life history

Population, densities, distribution, diversity

Urban-area habitat

Relation to agriculture

Damage (by birds)

Relations with other fauna

Study methods

Literature reviews and bibliographies

Checklists

Extinct species

The balance of the cavity-nesting bird index consists of separate indexes for each of 86 different cavity-nesting birds

known to frequent North American forests. A "woodpeckers—general information" index precedes the indexes for specific woodpeckers. This was necessary to handle the large amount of literature that deals with these birds as a group. Keywords used for the species (and group) specific indexes are:

Summary

Habitat management

Habitat

Foraging behavior

Breeding, nesting

Nest and roost trees

Nest boxes and houses

Biology, ecology, life history

Relations with other fauna

Territory

Distribution, population, density, status

Identification, taxonomy

Damage

All of the references listed for a given species are summarized following the keyword "summary." Conversely, each reference listed after the keyword "summary" is also listed after one or more of the other keywords used for the bird species.

If one of the keywords is not used for a given species, it is because appropriate references are not included in this bibliography.

The selection and order of the index words is arbitrary. They are purposely biased towards the needs of the forest manager. Birds are listed in the order prescribed by the American Ornithologist's Union.⁴

The Geographic Index

The Geographic Index is designed to help users find information pertaining to a specific area. Titles are indexed according to country and, for U.S. and Canadian literature, State or Province. U.S. references are also indexed according to section, i.e., Northeast, Southeast, etc. The important thing to remember when using the Geographic Index is that literature is indexed at the most specific level possible and then not included at a broader level. For example, a reference about the eastern bluebird in New York will be listed following the keyword "New York" and will not be repeated following the keywords "Northeast," "United States," or "North America."

How to Use the Bibliography

This bibliography is designed for easy use. The user should become familiar with the indexes and their keywords before starting a search. To make a search, select the appropriate index and keywords and list the reference numbers provided. Use these reference numbers to identify the author, title, and source of the reference in the list of titles and reference numbers.

FINDING CURRENT LITERATURE

Most of the titles listed in this bibliography were published before 1980. Three of the many sources of information about cavity-nesting birds and related current literature that forest

⁴American Ornithologist's Union. 1957 Check-list of North American Birds. 691 p. Lord Baltimore Press, Baltimore, Md.

managers might find useful because of their easy availability are:

1. USDA Forest Service—lists of current research publications. These lists are distributed regularly by the Forest and Range Experiment Stations. To get your name on the mailing list, write to the Station's Director at one of the following addresses:

Intermountain Forest and Range Experiment Station 507 25th St., Ogden, UT 84401

North Central Forest Experiment Station 1992 Folwell Ave., St. Paul, MN 55108

Northeastern Forest Experiment Station 370 Reed Rd., Broomall, PA 19008

Pacific Northwest Forest and Range Experiment Station 809 NE 6th Ave., Box 3141, Portland, OR 97208

Pacific Southwest Forest and Range Experiment Station 1960 Addison St., Box 245, Berkeley, CA 94701

Rocky Mountain Forest and Range Experiment Station 240 W. Prospect St., Fort Collins, CO 80521

Southeastern Forest Experiment Station Post Office Building, Box 2570, Asheville, NC 28802

Southern Forest Experiment Station U.S. Postal Service Building, 701 Loyola Ave., New Orleans, LA 70113

- 2. Wildlife Review—an indexing and abstracting publication of the Fish and Wildlife Service, U.S. Department of the Interior. For subscription information, write to the Editorial Office, U.S. Fish and Wildlife Service, 270 Ayleworth Hall, Colorado State University, Fort Collins, CO 80523.
- 3. Journal of Forestry—current forestry literature is listed in each issue. The Journal is mailed monthly to members of the Society of American Foresters. For information, write Society of American Foresters, 5400 Grosvenor Lane, Bethesda, MD 20014.

LIST OF TITLES AND REFERENCE NUMBERS

1. Achilles, L.

1906. Nesting of the Arctic three-toed woodpecker in the Adirondacks. Bird-Lore 8(5):158–160.

2. Adams, C. C.

1923. Notes on the relationships of birds to Adirondack forest vegetation. Roosevelt Wildl. Bull. 1(4):487-519.

3. Adams, L., M. G. Hanavan, N. W. Hosley, and D. W. Johnston.

1949. The effects on fish, birds, and mammals of DDT used in the control of forest insects in Idaho and Wyoming. J. Wildl. Manage. 13(3):245-254.

 Addy, N. D., H. O. Batzer, W. J. Mattson, and W. E. Miller. 1971. Impact of insects on multiple-use values of northcentral forests: an experimental rating scheme. USDA For. Serv. Res. Pap. NC-57, 8 p. North Cent. For. Exp. Stn., St. Paul, Minn. 5. Affeltranger, C.

1971. The red heart disease of southern pines. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. p. 96–99. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]

6. Aho, P. E.

1977. Decay of grand fir in the Blue Mountains of Oregon and Washington. USDA For. Serv. Res. Pap. PNW-229, 18 p. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

7. Aho, P., and J. Hadfield.

1975. How to estimate defect in white fir in south-central Oregon. 10 p. USDA For. Serv., Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

8. Aho, P., and J. Hadfield.

1975. How to estimate defect in grand fir in the Blue Mountains of Oregon and Washington. 10 p. USDA For. Serv., Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

9. Allaire, P. N.

1979. Coal mining reclamation in Appalachia: low cost recommendations to improve bird/wildlife habitat. *In* The Mitigation Symposium: A National Workshop on Mitigating Losses of Fish and Wildlife Habitats [Fort Collins, Colo., July 16–20, 1979]. p. 245–251. USDA For. Serv. Gen. Tech. Rep. RM-65. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

10. Allen, A. A.

1929. Chickadee. Bird-Lore 31:69-78.

11. Allen, A. A.

1929. Nuthatch. Bird-Lore 31:423-432.

12. Allen, A. A.

1930. Gentle bluebird's story. Bird-Lore 32:151-159.

13. Allen, A. A.

1930. The screech owl's story. Bird-Lore 32:447–457.

14. Allen, A. A., and P. P. Kellogg.

1937. Recent observations on the ivory-billed woodpecker. Auk 54:164–184.

15. Allen, D. L.

1943. Michigan fox squirrel management. Mich. Dep. Conserv. Game Div. Publ. 100, 104 p.

16. Allen, F. H.

1912. The white-breasted and red-breasted nuthatches. Bird-Lore 14:316–319.

17. Allen, L. E.

1924. A few nuthatch notes. Oologist 41:126-128.

18. Allen, L. E.

1925. Nuthatch nests in central Iowa. Oologist 42:164-165.

19. Allen, R. W., and M. M. Nice.

1952. A study of the breeding biology of the purple martin (*Progne subis*). Am. Midl. Nat. 47(3):606–665.

20. Almand, J. D.

1965. A contribution to the management requirements of the wood duck (*Aix sponsa*) in the piedmont of Georgia. M.S. thesis. Univ. Georgia, Athens. 78 p.

21. Ambrose, R. E.

1972. Scenic mountain roads and their effect on bird communities. Alabama Birdlife 20:3-6

22. Ambrose, R. E.

1975. The effect of clearcutting on bird and small mammal populations. Ph.D. diss. Univ. Tenn., Knoxville.

23. American Ornithologist's Union.

1957. Check-list of North American birds. 5th ed. 691 p. Lord Baltimore Press, Baltimore, Md.

24. American Ornithologist's Union.

1976. 33rd supplement to The American Ornithologist's Union check-list of North American birds. Auk 93: 875-879.

25. Amman, G. D.

1958. A comparative study of the methods of censusing woodpeckers in spruce-fir forests in Colorado. M.S. thesis. Colo. State Univ., Fort Collins. 125 p.

26. Amman, G. D., and P. H. Baldwin.

1960. A comparison of methods of censusing woodpeckers in spruce-fir forests in Colorado. Ecology 41(4):699-706.

27. Amozov, A. F.

1969. Dead-standing pine – a valuable raw material for chemical products. Girol lesohim. prom. 22(3):29.

28. Anderson, D. J.

1979. Competitive interactions among vultures and their avian competitors. Ibis 121(4):505-509.

29. Anderson, E. V., Jr.

1971. Shaded fuel-breaks: fire control and timber both benefit. USDA For. Serv., Fire Control Notes 32(2): 11–12.

Anderson, G. W., T. E. Hinds, and D. M. Knutson.
 1977. Decay and discoloration of aspen. USDA For.
 Serv., For. Insect and Disease Leafl. 149, 4 p.
 Washington, D.C.

31. Anderson, S. H.

1970. Ecological relationships of birds in forests of western Oregon. Ph.D. diss. Oreg. State Univ., Corvallis. 124 p.

32. Anderson, S. H.

1972. Seasonal variation in forest birds of western Oregon. Northwest Sci. 46:194–206.

33. Anderson, S. H.

1976. Comparative food habits of Oregon nuthatches. Northwest Sci. 50(4):213-221.

34. Anderson, S. H.

1979. Habitat structure, succession, and bird communities. *In* Management of North Central and Northeastern Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23–25, 1979]. p. 9–21. USDA For. Serv. Gen. Tech. Rep. NC–51. North Cent. For. Exp. Stn., St. Paul, Minn.

35. Anderson, S. H., K. Mann, and H. H. Shugart, Jr. 1977. The effect of transmission-line corridors on bird populations. Am. Midl. Nat. 97(1):216–221.

36. Anderson, S. H., and H. H. Shugart, Jr.

1974. Habitat selection of breeding birds in an east Tennessee deciduous forest. Ecology 55:828-837.

37. Andrews, S. R.

1955. Red rot of ponderosa pine. USDA For. Serv., Agric. Monogr. 23, 34 p. Washington, D.C.

38. Angell, T.

1974. Owls. 80 p. Univ. Wash. Press, Seattle.

39. Angell, T.

1976. Reflections on new life in an old forest. Pac. Search 11(3):6-7.

40. Antes, F. T.

1903. A nuthatch's nest. Bird-Lore 5:196.

41. Appel, O., and M. Schwartz.

1921. Die Bedevtung des Vogelschutzes fur den Pflanzenschutz. Nachr. Bl. Disch. PflScDienst, Berlin 1:40-50.

42. Armijo, L.

1979. Spare that old, dead tree Am. For. 85(3):32-35, 47.

43. Armstrong, E. A., and H. I. K. Whitehouse. 1977. Adaptations of the wren (*Troglodytes troglodytes*).

Biol. Rev. 52(2):235-294.

44. Arvey, M. D.

1940. A preliminary check-list of the birds of northern Idaho. M.S. thesis. Univ. Idaho, Moscow. 42 p.

45. Arvey, M. D.

1947. A check-list of the birds of Idaho. Univ. Kansas Publ. Mus. Nat. Hist 1(10):193-216.

46. Arvey, M. D.

1950. Additions and corrections to the check-list of Idaho birds. Condor 52(6):275.

47. Asplund, R. W.

1955. A safe way to fell a burning snag. USDA For. Serv., Fire Control Notes 16(1):15.

48. Aultfather, W. A.

1966. Impact of forest management and other human activities on northern wood duck habitat. *In* Wood Duck Management and Research: A Symp. p. 23–29. Wildl. Manage. Inst., Washington, D.C.

49. Austin, D. D., and M. L. Perry.

1979. Birds in six communities within a lodgepole pine forest. J. For. 77(9):584-586.

50. Austin, G. T.

1976. Sexual and seasonal differences in foraging of ladder-backed woodpeckers. Condor 78:317-323.

51. Austin, O. L., and S. H. Low.

1932. Notes on the breeding of the tree swallow. Bird-Banding 3:39–44.

52. Axelrod, M.

1979. Observations on a boreal chickadee nest. Loon 51(3):135-140.

53. Back, G. N.

1979. Arian communities and management guidelines of the aspen-birch forest. *In* Management of North Central and Northeastern Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan 23-25, 1979]. p. 67-79. USDA For. Serv. Gen. Tech. Rep. NC-51. North Central For. Exp. Stn., St. Paul, Minn.

54. Bailey, A. M., and R. J. Niedrach.

1965. Birds of Colorado, vol. 1–2. 895 p. Denver Mus. Nat. Hist., Colo.

55. Bailey, E. P.

1966. Abundance and activity of starlings in winter in northern Utah. Condor 68:152–162.

56. Baker, J. N.

1975. Egg-carrying by a common flicker. Auk 92:614-615.

57. Baker, W. W.

1971. Progress report on life history studies in the redcockaded woodpecker at Tall Timbers Research Station. *In* The Ecology and Management of the Redcockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. p. 44–59. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.] 58. Baker, W. W.

1971. Observations on the food habits of the red-cockaded woodpecker. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. p. 100–107. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]

59. Baker, W. W.

1974. Longevity of lightning-struck trees and notes on wildlife use. Proc. Tall Timbers Fire Ecol. Conf. 13:497–504.

60. Balda, R. P.

1969. Foliage use by birds of the oak-juniper woodlands and ponderosa-pine forest in southeastern Arizona. Condor 71:399–412.

61. Balda, R. P.

1975. The relationship of secondary cavity nesters to snag densities in western coniferous forests. USDA For. Serv., Reg. 3, Wildl. Habitat Tech. Bull. 1, 37 p. Albuquerque, N. Mex.

62. Balda, R. P.

1975. Vegetation structure and breeding bird diversity. *In* Proc. Symposium on Management of Forest and Range Habitats for Nongame Birds [Tucson, Ariz., May 6-9, 1975]. p. 59-80. USDA For. Serv. Gen. Tech. Rep. WO-1. Washington, D.C.

63. Baldwin, P. H.

1960. Overwintering of woodpeckers in bark beetle-infested spruce-fir forests in Colorado. p. 71-84. Proc. XII Int. Ornithol. Congr. [Helsinki, 1958].

64. Baldwin, P. H.

1968. Woodpecker feeding on Engelmann spruce beetle in windthrown trees. USDA For. Serv. Res. Note RM-105, 4 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

65. Baldwin, P. H.

1968. Predator-prey relationships of birds and spruce beetles. Proc. North Cent. Br. Entomol. Soc. Am. 23(2):90–99.

66. Baldwin, P. H., and W. F. Hunter.

1963. Nesting and nest visitors of the Vaux swift in Montana. Auk 80(1):81-85.

67. Baldwin, P. H., and N. K. Zaczkowski. 1963. Breeding biology in the Vaux swift. Condor 65(5):400–406.

68. Baldwin, S. P.

1921. The marriage relations of the house wren. (*Troglodytes a. aedon*). Auk 38:237-244.

69. Baldwin, S. P., and S. C. Kendeigh.

1927. Attentiveness and inattentiveness in the nesting behavior of the house wren. Auk 44:206-216.

70. Balgooyen, T. G.

1976. Behavior and ecology of the American kestrel (Falco sparverius L.) in the Sierra Nevada of California. Univ. Calif. Pub. Zool., vol. 103. 83 p. Univ. Calif. Press, Berkeley.

71. Ball, I. J., Jr.

1971. Movements, habitat use and behavior of wood duck (Aix sponsa) broods in north-central Minnesota as determined by radio tracking. M.S. thesis. Univ. Minn., St. Paul. 56 p.

72. Ball, I. J., Jr.

1973. Ecology of duck broods in a forested region of north-central Minnesota. Ph.D. diss. Univ. Minn., St. Paul. 67 p.

73. Ball, I. J., Jr., D. S. Gilmer, L. M. Cowardin, and J. H. Riechmann.

1975. Survival of wood duck and mallard broods in north-central Minnesota. J. Wildl. Manage. 39(4): 776–780.

74. Bangs, O.

1900. A review of the three-toed woodpeckers of America. Auk 17:126-142.

75. Banks, R. C.

1970. Molt and taxonomy of red-breasted nuthatches. Wilson Bull. 82(2):201–220.

76. Baranyay, J. A., and L. Safranyik.

1970. Effect of dwarf mistletoe on growth and mortality of lodgepole pine in Alberta. Dep. Fish and For., Can. For. Serv. Publ. 1285, 19 p. Ottawa.

77. Barash, D. P.

1974. An advantage of winter flocking in the black-capped chickadee, *Parus articapillus*. Ecology 55:674–676.

78. Barlow, J. C.

1973. Status of the North American population of the European tree sparrow. *In* A Symposium on the House Sparrow (*Passer domesticus*) and European Tree Sparrow (*P. montanus*) in North America. p. 10–23. Am. Ornithol. Union, Ornithol. Monogr. 14.

79. Bart, J.

1977. Impact of human visitations on avian nesting success. The Living Bird 16:187-192.

80. Bart, J.

1979. Effects of acephate and servin on forest birds. J. Wildl. Manage. 43(2):544-549.

81. Bartlett, W. A.

1941. Taming bluebirds. Oologist 58:142-144.

82. Barrows, J. S.

1951. Forest fires in the Northern Rocky Mountains. USDA For. Serv., North. Rocky Mt. For. and Range Exp. Stn., Pap. 28, 251 p. Missoula, Mont.

83. Barrows, J. S.

1951. Fire behavior in northern Rocky Mountain forests. USDA For. Serv., North. Rocky Mt. For. and Range Exp. Stn., Pap. 29, 103 p. Missoula, Mont.

84. Basham, J. T.

1957. The deterioration by fungi of jack, red, and white pine killed by fire in Ontario. Can. J. Bot. 35:155–172.

85. Basham, J. T.

1958. Decay of trembling aspen. Can. J. Bot. 36:491–505.

86. Batts, H. L.

1953. Siskin and goldfinch feeding at sapsucker tree. Wilson Bull. 65:198.

87. Baumgartner, L. L.

1939. Fox squirrel dens. J. Mammal. 20(4):456-465.

88. Baxter, D. V.

1952. Pathology in forest practice, 2d ed. 60l p. John Wiley and Sons, Inc., New York.

89. Beal, F. E. L.

1907. Birds of California in their relation to the fruit industry, part 1. U.S. Dep. Agric., Biol. Surv. Bull. 30. Washington, D.C.

90. Beal, F. E. L.

1911. Foods of the woodpeckers of the United States.U.S. Dep. Agric. Biol. Surv. Bull. 37, 64 p.Washington, D.C.

91. Beal, F. E. L.

1918. Good habits of the swallows, a family of valuable native birds. U.S. Dep. Agric. Bull. 619, 28 p. Washington, D.C.

92. Beal, F. E. L., W. L. McAtee, and E. R. Kalmbach. 1916. Common birds of southeastern United States in relation to agriculture. U.S. Dep. Agric. Farmer's Bull. 755, p. 34–35. Washington, D.C.

93. Beaver, D. L.

1967. Feeding niches of flycatchers in a montane forest in Colorado. M.S. thesis. Colo. State Univ., Fort Collins. 122 p.

94. Becker, G. C.

1942. Notes on the pileated woodpecker in Wisconsin. Passenger Pigeon IV(4,5,6):29:34.

95. Becker, P. A.

1944. One season of bluebirds. Flicker 16:62-64.

96. Beckett, T.

1971. A summary of red-cockaded woodpecker observations in South Carolina. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc Symp. [Folkston, Ga, May 26–27, 1971]. p. 87–95. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]

97. Beebe, F. L.

1974. Field studies of the Falconiformers (vultures, hawks, falcons and eagles) of British Columbia. Occas. Pap. B.C. Prov. Mus. 17:1-103.

98. Beebe, S. B.

1974. Relationships between insectivorous hole nesting birds and forest management. 49 p. Yale Univ. Sch. For. and Environ. Studies, New Haven, Conn.

99. Beecher, W. J.

1942. Nesting birds and the vegetable substrate. 69 p. Chicago Ornithol. Soc.

100. Bellrose, F. C.

1955. Housing for wood ducks. Ill. Nat. Hist. Surv. Circ. 45, 48 p.

101. Bellrose, F. C.

1976. The comeback of the wood duck. Wildl. Soc. Bull. 4(3):107–110.

102. Bellrose, F. C.

1976. Ducks, geese, and swans of North America. 543 p. Stackpole Books, Harrisburg, Pa.

103. Bellrose, F. C., K. L. Johnson, and T. U. Meyers. 1964. Relative value of natural cavities and nesting houses for wood ducks. J. Wildl. Manage. 28(4): 661-676.

104. Bellrose, F., Jr.

1938. Duck hawks nesting in western Tennessee. Wilson Bull. 50(2):139.

105. Belyea, R. M.

1952. Death and deterioration of balsam fir weakened by spruce budworm defoliation in Ontario. J. For. 50: 729–738.

106. Bendell, J. F.

1974. Effects of fire on birds and animals. *In* Fire and ecosystems. p. 73-138. T. T. Kozlowski and C. E. Ahlgren, eds. Academic Press, New York.

107. Bendire, C. E.

1888. Notes on the habitats, nests, and eggs of the genus *Sphyrapicus* Baird. Auk 5:225-240.

108. Bendire, C. E.

1892. Life histories of North American birds with special reference to their breeding habits and eggs. 446 p. U.S. Natl. Mus. Spec. Bull. 1, Smithsonian Inst., Washington, D.C.

109. Bent, A. C.

1923. Life histories of North American water fowl, part 1. U.S. Natl. Mus. Bull. 126, 244 p. Washington, D.C. [Reprinted by Dover Publ., Inc., New York, 1962.]

110. Bent, A. C.

1932. More about the purple martins. Bull. Mass. Audbon Soc. 16(6):79.

111. Bent, A. C.

1937. Life histories of North American birds of prey, vol 1. U.S. Natl. Mus. Bull. 167, 409 p. Washington, D.C. [Reprinted by Dover Publ., Inc., New York, 1961.]

112. Bent, A. C.

1938. Life histories of North American birds of prey, vol. II. U.S. Natl. Mus. Bull. 170, 495 p. Washington, D.C. [Reprinted by Dover Publ., Inc., New York, 1961.]

113. Bent, A. C.

1939. Life histories of North American woodpeckers. U.S. Natl. Mus. Bull. 174, 334 p. Washington, D.C. [Reprinted by Dover Publ., Inc., New York, 1964.]

114. Bent, A. C.

1940. Life histories of North American cuckoos, goatsuckers, hummingbirds, and their allies. U.S. Natl. Mus. Bull. 176, 506 p. Washington, D.C. [Reprinted by Dover Publ., Inc., New York, 1964.]

115. Bent, A. C.

1942. Life histories of North American flycatchers, larks, swallows, and their allies. U.S. Natl. Mus. Bull. 179, 555 p. Washington, D.C. [Reprinted by Dover Publ., Inc., New York, 1964.]

116. Bent, A. C.

1946. Life histories of North American jays, crows, and titmice. U.S. Natl. Mus. Bull. 191, 495 p. Washington, D.C. [Reprinted by Dover Publ., Inc., New York, 1964.]

117. Bent, A. C.

1948. Life histories of North American nuthatches, wrens, thrashers, and their allies. U.S. Natl. Mus. Bull. 195, 475 p. Washington, D.C. [Reprinted by Dover Publ., Inc., New York, 1964.]

118. Bent, A. C.

1953. Life histories of North American wood warblers. U.S. Natl. Mus. Bull. 203, 734 p. Washington, D.C.

119. Benton, A. H.

1968. An unusual nesting situation of tree swallow. Wilson Bull. 80(2):233.

120. Berga, R. V., tech. coord.

1978. Diseases of Pacific Coast conifers. USDA For. Serv. Agric. Handb. 521, 206 p. Washington, D.C.

121. Berger, A. J.

1961. Bird study. 389 p. John Wiley and Sons, New York.

122. Bergstrom, D.

1978. Saving snags for woodpeckers. *In* Forestry research: what's new in the West, Jan. 1978, p. 1-4.

123. Bergtold, W. H.

1912. October birds of the headwaters of the Gila River. Auk 29(3):327-336.

124. Berlepsch, Friir von.

1926. Der gesamte vogelschutz. 11th ed. Neudamm.

125. Bertrand, G. A., and J. M. Scott.

1971. Checklist of the birds of Oregon. 17 p. Oreg. State Univ., Corvallis.

126. Beshears, W. W.

1974. Wood ducks in Alabama. Final Rep. on Fed. Aid in Wildl. Restoration, Proj. W-35, Job 1-4, 45 p.

127. Best, L. B., D. F. Stauffer, and A. R. Geier.

1979. Evaluating the effects of habitat alteration on birds and small mammals occupying riparian communities. *In* Strategies for Protection and Management of Floodplain Wetlands and Other Riparian Ecosystsms, Proc. Symp. [Callaway Gardens, Ga., Dec. 4-13, 1978]. p. 117124. USDA For. Serv. Gen. Tech. Rep. WO12. Washington, D.C.

128. Betts, M. M.

1955. The food of titmice in an oak woodland. J. Anim. Ecol. 24:282–323.

129. Betts, N. de W.

1909. Brown creepers nesting near St. Louis. Auk 26:434–443.

130. Betts, T.

1979. Teenager creates a bluebird trail. Defenders Mag. 54(1):24–28.

131. Bierly, M. L.

1978. Brown creeper nests in Nashville. Migrant 49(4): 86–87.

132. Birch, D. C.

1918. Extra costs of logging National Forest stumpage. J. For. 16(8):909–914.

133. Black, E. R.

1970. The flicker and the southwestern corn borer in Mississippi. Proc. Tall Timbers Conf. on Ecol. Anim. Control by Habitat Manage. 2:285–292.

134. Black, H. C.

1969. Wildlife and Reforestation in the Pacific Northwest, Proc. Symp. [Corvallis, Oreg., Sept. 12–13, 1968]. 93 p. Oreg. State Univ., Corvallis.

135. Black, H. C.

1974. Wildlife and Forest Management in the Pacific Northwest, Proc. Symp. [Corvallis, Oreg., Sept. 11–12, 1973]. 236 p. Oreg. State Univ., Corvallis.

136. Black, H., Jr., and J. W. Thomas.

1978. Forest and range wildlife habitat management: ecological principles and management systems. *In* The Workshop on Nongame Bird Habitat Management in Coniferous Forests of the Western United States, Proc. [Portland, Oreg., Feb. 7–9, 1977]. p. 47–55. USDA For. Serv. Gen. Tech. Rep. PNW–64. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

137. Blackford, J. L.

1955. Woodpecker concentration in burned forest. Condor 57:28- 30.

138. Blagosklonov, K. N.

1968. Nesting trees of woodpeckers in different forest types. Ornitologiya 9:95-102.

139. Blagosklonov, K. N.

1970. On the importance of nest illumination to cavitynesting birds. Byull. Mosk. Obshchest. Ispty. Prir. Otd. Biol. 75(3):45-47.

140. Blake, C. H.

1947. Swallow notes. Bull. Mass. Audubon Soc. 31:239.

141. Blodgett, K. D., and R. M. Zammute.1979. Chimney swift nest found in hollow tree. Wilson Bull. 91(1):154.

142. Blume, D.

1962. Morning and evening observations of woodpecker territories. Ornithol. Metteil. 14(10):181–187.

143. Bleitz, D.

1951. Nest of pygmy nuthatch attended by four parents. Condor 53:150–151.

144. Bock, C. E.

1969. Intra- vs. interspecific aggression in pygmy nuthatches. Ecology 50:903–905.

145. Bock, C. E.

1970. The ecology and behavior of the Lewis woodpecker (*Asyndesmus lewis*). Univ. Calif. Publ. in Zool. 92:1–100. Univ. Calif. Press, Berkeley and Los Angeles.

146. Bock, C. E.

1974. Geographical ecology of the acorn woodpecker: diversity vs. abundance of resources. Am. Nat. 108(963):694–698.

147. Bock, C. E., and J. H. Bock.

1974. On the geographical ecology and evaluation of the three-toed woodpeckers, *Picoides tridactylus* and *P. arcticus*. Am. Midl. Nat. 92(2):397–405.

148. Bock, C. E., and J. H. Bock.

1977. Patterns of post-fire succession on the Donner Ridge burn, Sierra Nevada. *In* Proc. Symposium on the Environmental Consequences of Fire and Fuel Management in Mediterranean Ecosystems [Palo Alto, Calif., Aug. 1-5, 1977]. p. 464-469. USDA For. Serv. Gen. Tech. Rep. WO-3. Washington, D.C.

149. Bock, C. E., and J. H. Bock.

1978. Response of birds and small mammals, and vegetation to burning sacaton grasslands in southeastern Arizona. J. Range Manage. 31(4):296–300.

150. Bock, C. E., H. H. Hadlow, and P. Somers.

1971. Relations between Lewis and redheaded woodpeckers in southeastern Colorado. Wilson Bull. 83(3):237–248.

151. Bock, C. E., and L. W. Lepthien.

1972. Winter eruptions of red-breasted nuthatches in North America. Am. Birds 26(3):558-561.

152. Bock, C. E., and L. W. Lepthien.

1975. A Christmas count analysis of woodpecker abundance in the United States. Wilson Bull. 87(3): 355–366.

153. Bock, C. E., and J. F. Lynch.

1970. Breeding bird populations of burned and unburned conifer forest in the Sierra Nevada. Condor 72(2): 182-189

154. Bock, J. H., C. E. Bock, and R. McKnight.

1976. A study of the effects of grassland fires at the Research Ranch in southeastern Arizona. Ariz. Acad. Sci. 11(3):49–57.

155. Bock, W. J., and W. D. Miller.

1959. The scansorial foot of the woodpeckers, with comments on the evolution of climbing and perching feet in birds. Am. Mus. Novitates No. 1931.

156. Bole, M.

1906. My chickadee family. Bird-Lore 8:6-8.

157. Bolen, E. G.

1967. Nesting boxes for black-bellied tree ducks. J. Wildl. Manage. 31(4):794–797.

158. Bolen, E. G., and B. J. Forsyth.

1967. Foods of the black-bellied tree duck in south Texas. Wilson Bull. 79(1):43–49.

159. Bolen, E. G., B. McDaniel, and C. Cottam.

1964. Natural history of the black-bellied tree duck (*Dendrocyana autumnalis*) in southern Texas. Southwest Nat. 9(2):78–88.

160. Bolles, F.

1891. Yellow-bellied woodpeckers and their uninvited guests. Auk 8:256–270.

161. Bond, Jr.

1948. Domestic brown creepers. Bull. Maine Audubon Soc. 4:3-4.

162. Bondrup-Nielson, S.

1977. Thawing of frozen prey by boreal and saw-whet owls. Can. J. Zool. 53(3):595–601.

163. Booth, E. S.

1952. Ecological distribution of the birds of the Blue Mountains region of southeastern Washington and northeastern Oregon. Walla Walla Coll. Dep. Biol. Sci. and Biol. Stn. Publ. 7:65–107. College Place, Wash.

164. Bottorff, R. L.

1974. Cottonwood habitat for birds in Colorado. Am. Birds 28:975–979.

165. Bouvier, J. M.

1974. Breeding biology of the hooded merganser in southwestern Quebec, including interactions with common goldeneyes and wood ducks. Can. Field Nat. 88: 323–330.

166. Bower, R. W.

1948. An efficient snag pusher. USDA For. Serv., Fire Control Notes 9(1):26–27.

167. Bowles, J. H.

1909. The western winter wren in Washington. Oologist 26:68-71.

168. Bowman, B. L.

1960. Notes on a successful bluebird nest. Oriole 25:48.

169. Boyce, J. S.

1930. Decay in Pacific Northwest conifers. Yale Univ., Osborn Bot. Lab. Bull. 1, 51 p. New Haven, Conn.

170. Boyce, J. S.

1961. Forest pathology. 3d ed. 572 p. McGraw-Hill, Inc., New York.

171. Boyer, R. L.

1976. Abundance of tree cavities for wildlife in a Michigan red maple floodplain forest. Jack-Pine Warbler 54(5):155-158.

172. Brackbill, H.

1950. Successive nesting sites of individual birds of eight species. Bird-Banding 21:6–8.

173. Brackbill, H.

1953. Notes on the drumming of some woodpeckers. Bird-Banding 24:18.

174. Brackbill, H.

1970. Tufted titmouse breeding behavior. Auk 87(3): 522-536.

175. Bradburg, W. C.

1919. Nesting notes on the Rocky Mountain creeper. Condor 21:49–52.

176. Bradshaw, F.

1930. Unusual nesting sites. Can. Field Nat. 44:149-150.

177. Brandy, P. J., and R. D. Taber.

1974. Forest and wildlife management: conflict and coordination. *In* Wildlife and Forest Management in the Pacific Northwest, Proc. Symp. [Corvallis, Oreg., Sept. 11–12, 1973]. p. 21–28. Oreg. State Univ., Corvallis.

178. Brecher, L. C.

1940. Late record of the red-breasted nuthatch. Kentucky Warbler 16:31.

179. Brewer, R.

1961. Comparative notes on the life history of the Carolina chickadee. Wilson Bull. 73(4):348–373.

180. Brewer, R

1963. Ecological and reproductive relationships of black-capped and Carolina chickadees. Auk 80:947.

181. Brewer, R., and L. Swander.

1977. Life history factors affecting the intrinsic rate of natural increase of birds of the deciduous forest biome. Wilson Bull. 89(2):211-232.

182. Brewster, W.

1879. Breeding habits of the American brown creeper (*Certhia familiaris americana*). Bull. Nutt. Ornithol. Club 4:199-209.

183. Brewster, W.

1893. A brood of young flickers (*Colaptes auratus*) and how they were fed. Auk 10(3):231–236.

184. Brock, E. M.

1958. Some prey of the pygmy owl. Condor 60(5):338.

185. Brodkorb, P.

1928. Flicker trapped by resin. Auk 45:503-504.

186. Brodkorb, P.

1935. Two new subspecies of the red-shafted flicker.

Mus. Zool., Univ. Mich., Ann Arbor, Occas. Pap. 314.

187. Brodrick, H. J.

1938. Nesting and re-mating of a pair of bluebirds. Auk 55:538-539.

188. Bromee-Skuncke, F.

1964. Forestry and forest birds, with special reference to the hole-nesting species. Svenska Skogvforen. Tidskr. 44(3):242-259.

189. Bromley, R. G.

1973. Fire and birds. 7 p. Univ. Alaska, Fairbanks.

190. Brooks, M.

1932. Carolina wrens roosting in abandoned hornets nests. Auk 49(2):223-224.

191. Brooks, M.

1934. Some traits of the northern pileated woodpecker. Bird-Lore 36(6):347–351.

192. Brown, A. A., and K. P. Davis.

1973. Forest fire control and use. 686 p. McGraw-Hill, Inc., New York.

193. Brown, J. H.

1978. The theory of insular biogeography and distribution of boreal birds and mammals. *In* Intermountain Biogeography: A Symposium. Great Basin Nat. Memoirs 1978(2):209-227.

194. Brown, V., and H. G. Weston., Jr.

1961. Handbook of California birds. 224 p. Naturegraph Co., Calif.

195. Brown, W. H.

1976. Winter population trends in the black and turkey vultures. Am. Birds 30(5):909-912.

196. Burns, H.

1960. The economic importance of birds in forests. Bird Study 7(4):193-209.

197. Bryant, H. C.

1911. The relation of birds to an insect outbreak in northern California during the spring and summer of 1911. Condor 13(6):195-208.

198. Bryens, O. M.

1925. Statistics on the house wren. Wilson Bull. 37:157–159.

199. Buech, R. R.

1974. Vertebrates of the Enterprise Forest: a general survey. *In* The Enterprise, Wisconsin radiation forest: pre-irradiation ecological studies. p. 119–122. U.S. Atomic Energy Comm. T:D26113. Oak Ridge, Tenn.

200. Bull, E. L.

1975. Habitat utilization of the pileated woodpecker, Blue Mountains, Oregon. M.S. thesis. Oreg. State Univ., Corvallis. 58 p.

201. Bull, E. L.

1978. Specialized habitat requirements of birds: snag management, old growth and riparian habitat. *In* The Workshop on Nongame Bird Management in the Coniferous Forests of Western United States, Proc. [Portland, Oreg., Feb. 7–9, 1977]. p. 7481. USDA For. Serv. Gen. Tech. Rep. PNW-64. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

202. Bull, E. L.

1978. Roosting activities of a male pileated woodpecker. Murrelet 59:35–36.

203. Bull, E. L.

1978. Notes on flammulated owls in northeastern Oregon. Murrelet 59:26–27.

204. Bull, E. L., and E. C. Meslow.

1977. Habitat requirements of the pileated woodpecker in northeastern Oregon. J. For. 75(6):335-337.

205. Bull, E. L., and S. R. Peterson.

1976. Woodpecker habitat studied in Blue Mountains. Focus 3:24.

206. Bull, J., and J. Farrand, Jr.

1977. The Audubon Society field guide to North American birds: eastern region. 755 p. Alfred A. Knopf, Inc., New York.

207. Bunch, Carl H.

1964. Nesting of the western purple martin. Murrelet 45(1):10–11.

208. Burleigh, T. D.

1923. Notes on the breeding birds of Clark's Fork, Bonner County, Idaho. Auk 40(4):653–665.

209. Burleigh, T. D.

1950. Give Idaho hawks a break . . . some species helpful to wildlife. Idaho Wildl. Rev., Feb. 1950, p. 6–7.

210. Burleigh, T. D.

1950. Idaho owls should be pampered, not persecuted. Idaho Wildl. Rev., June–July 1950, p. 4–5.

211. Burleigh, T. D.

1960. Three new subspecies of birds from western North America. Auk 77(2):210–215.

212. Burleigh, T. D.

1972. Birds of Idaho. 467 p. The Caxton Printers, Ltd., Caldwell, Idaho.

213. Burnham, K. P., and D. R. Anderson.

1979. The composite dynamic method as evidence for age-specific waterfowl mortality. J. Wildl. Manage. 43(2):356–366.

214. Burns, F. L.

1900. A monograph of the flicker. Wilson Bull. 7(2):1-82.

215. Burns, H.

1957. Studies of population densities of birds in coniferous forests. Ornithol. Mitteil. 9:241–253.

216. Burns, H.

1959. The economic importance of birds in forests. Bird Study 7(4):193–208.

217. Burns, H.

1963. Two great tit (*Parus major*) broods at the same time in the same tree. Ornithol. Mitteil. 15(4):87–88.

218. Burns, H., F. Causer, M. Pavan, and G. Rochetti.
1966. First report on the results of experiments upon the re-settling of cavity-nesting birds in the Appennines (Italy). Angewandte Ornithol. 2(3):126–132.

219. Burns, S.

1974. Managing snags for wildlife habitat. Coordinating guidelines for wildlife habitat management, No. 2, 9 p. USDA For. Serv., Bitterroot Natl. For., Hamilton, Mont.

220. Burr, R. M., and R. E. Jones.

1968. The influence of parkland habitat management on birds in Delaware. North Am. Wildl. and Nat. Resour. Conf. Trans. 33:299–306.

221. Burt, W. H.

1930. Adaptive modifications in the woodpeckers. Univ. Calif. Publ. Zool. 32(8):455–524.

222. Burtch, V.

1918. Notes on the tree swallow. Bird-Lore 20:133-135.

223. Burton, J. A., ed.

1973. Owls of the world. 2l6 p. E. P. Dalton and Co., Inc., New York.

224. Buscemi, D.

1978. The last American parakeet. Nat. Hist. 87(4): 10–12.

225. Busse, P., and J. Gotzman.

1962. Nesting competition and mixed clutches among some birds inhabiting the nest-boxes. Acta Ornithol. 7(1):1-32.

226. Buttrick, P. L.

1913. Notes of insect destruction of fire-killed timber in the Black Hills of South Dakota. J. Econ. Entomol. 5(6):363-371.

227. Buttrick, P. L.

1913. Insect destruction of fire-killed timber in the Black Hills. For. Q. 11:363-371.

228. Buttiker, W.

1960. Artificial nesting devices in southern Africa. Ostrich 31(2):39–48.

229. Butts, W. K.

1931. A study of the chickadee and white-breasted nuthatch by means of marked individuals, part II. The chickadee (*Penthestes atricapillus atricapillus*). Bird-Banding 2:1–26.

230. Butts, W. K.

1931. A study of the chickadee and white-breasted nuthatch by means of marked individuals, part III. The white-breasted nuthatch (*Sitta carolinensis cookei*). Bird-Banding 2:59–76.

231. Calder, W. A.

1970. Use of dipper nest by mountain bluebird. Condor 72(4):498.

232. Campbell, R. W., M. A. Paul, M. S. Rodway, and H. R. Carter.

1978. Tree nesting peregrine falcons in British Columbia. Condor 79(4):500-501.

233. Campbell, R. W.

1973. Coastal records of the barred owl for British Columbia. Murrelet 54(2):25.

234. Canada Department of Northern Affairs and Natural Resources, Forestry Branch.

1956. Forest fire protection. Misc. Publ. 4, 21 p. Ottawa, Ont.

235. Canadian Forestry Service.

1974. Forest fire control in Canada. 32 p. Ottawa, Ont.

236. Canutt, P. R., and J. H. Poppino.

1978. Accounting for non-game bird habitat in land use planning. *In* The Workshop on Nongame Bird Habitat Management in the Coniferous Forests of the Western United States, Proc. [Portland, Oreg., Feb. 7–9, 1977]. p. 8390. USDA For. Serv. Gen. Tech. Rep. PNW64. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

237. Capen, D. E.

1979. Management of northeastern pine forests for nongame birds. *In* Management of North Central and Northeastern Forest for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23–25, 1979]. p. 90–109. USDA For. Serv. Gen. Tech. Rep. NC–51. North Cent. For. Exp. Stn., St. Paul, Minn.

238. Capen, D. E., R. J. Cooper, and R. M. DeGraaf.1979. Nongame birds of northeastern forests: population trends, habitat associations, research needs. Trans.Northeast. Sect. Wildl. Soc. 36:69-75.

239. Carbyn, L. N.

1971. Densities and biomass relationships of birds nesting in boreal forest habitats. Arctic 24(1):51-61.

240. Carothers, S. W., and R. R. Johnson.

1975. Water management practices and their effects on non-game birds in range habitats. *In* Symposium on Management of Forest and Range Habitats for Nongame Birds, Proc. p. 210–223. USDA For. Serv. Gen. Tech. Rep. WO-1. Washington, D.C.

241. Carothers, S. W., R. P. Balda, and J. R. Haldeman. 1973. Habitat selection and density of breeding birds of a coniferous forest in the White Mountains, Arizona. Mus. North Ariz. Tech. Bull. 12:22-54.

242. Carriger, H. W., and G. Wells.

1919. Nesting of the northern pileated woodpecker. Condor 21(4):153–156.

243. Carter, B. C.

1958. The American goldeneye in central New Brunswick. Can. Wildl. Serv., Wildl. Manage. Bull., Series 2(9):1–47.

244. Cash, J. A.

1933. Tree swallows: some observations made at close quarters. Bird-Lore 35:201–205.

245. Cassin, J.

1863. Notes on the Picidae, with descriptions of new and little known species. Proc. Acad. Nat. Sci. Philadelphia 15:194–204, 322–328.

246. Catling, P. M.

1972. A study of the boreal owl in southern Ontario with particular reference to the eruption of 1968–69. Can. Field Nat. 86(3):223–232.

247. Ceballos, P.

1968. The protection of insectivorous birds. Biol. Serv. Plagas For. 11(22):79–85.

248. Chace, L. W.

1928. Another martin story. Oologist 45:154-156.

249. Chadbourne, A. P.

1905. Nesting habits of the brown creeper as observed in Plymouth County, Massachusetts, with description of a nest from North Scituate. Auk 22:179–183.

250. Chamberlain, B. R.

1960. Brown creeper nest at High Hampton. Chat 24:102.

251. Chapman, L. B.

1935. Studies of a tree swallow colony. Bird-Banding 6:45-57.

252. Chapman, L. B.

1939. Studies of a tree swallow colony (second paper). Bird-Banding 10:61–72.

253. Chapman, L. B.

1955. Studies of a tree swallow colony (third paper). Bird-Banding 26:45-70.

254. Chiarabba, E.

1964. Woodpeckers and the control of poplar borers. Ital. Agric. 101(11):1106–1116.

255. Childs, T. W.

1968. Elytroderma disease of ponderosa pine in the Pacific Northwest. USDA For. Serv. Res. Pap. PNW-69, 46 p. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

256. Chipley, R. M.

1976. The impact of wintering migrant wood warblers on resident insectivorous passerines in a subtropical Columbian Oak woods. Living Bird 15:119-141.

257. Cink, C. L.

1976. The influence of early learning on nest site selection in the house sparrow. Condor 78(1):103-104.

258. Civilian Conservation Corps.

1935 circa. Work report of the Civilian Conservation Corps. For E. T. Scoyen, Supt. of Glacier Natl. Park. Glacier National Park Library, West Glacier, Mont.

259. Clark, H. W.

1935. Fire and bird populations. Condor 37(1):16-18.

260. Clark, J. P., and W. A. Wise.

1974. Analysis of barn owl pellets from Placer City, Calif. Murrelet 55(1):5-7.

261. Clark, R. J., D. G. Smith, and L. H. Kelso.

1978. Working bibliography of owls of the world with summaries of current taxonomy and distributional status. Natl. Wildl. Fed. Sci./Tech. Ser. 1, 319 p.

Clawson, R. L., G. W. Hartman, and L. H. Fredrickson.
 1979. Dump nesting in a Missouri wood duck population. J. Wildl. Manage. 43(2):347–355.

263. Cloudsley-Thompson, J. L.

1977. Animal life and desertification. Environ. Conserv. 4(3):199-204.

- 264. Cody, M. L., and C. B. J. Cody.
 1972. Territory size, clutch size, and food in populations of (winter) wrens. Condor 74(4):473-477.
- 265. Cohan, D. R., B. W. Anderson, and R. D. Ohmart. 1979. Avian population responses to salt cedar along the lower Colorado River. *In* Strategies for Protection and Management of Floodplain Wetlands and Other Riparian Ecosystems, Proc. Symp. [Callaway Gardens, Ga., Dec. 11-13, 1978]. p. 371-382. USDA For. Serv. Gen. Tech. Rep. WO-12. Washington, D.C.
- 266. Cohen, E.1961. Nestboxes. Field guide, British Trust for Ornithology 3d ed. 48 p. Oxford.
- 267. Cole, B. L.[n.d.] Forest management project-birds as forest protection agents. Wash. Dep. Nat. Resour., Olympia, Resour. Manage. Rep. 2, 18 p.
- 1965. Evolution of nest building. Nat. Hist. 74(7):40–47.
 269. Combellack, C. R. B.
 1954. A nesting of violet-green swallows. Auk

268. Collias, N. E.

Ithaca, N.Y.

- 71:435-442.
 270. Compton, D. M.
 1930. A study of the downy woodpecker, *Dendrocopos pubescens medianus*. M.S. thesis. Cornell Univ.,
- 271. Condee, R. W.
 1970. The winter territories of tufted titmice. Wilson
 Bull. 82(2):177-183.
- 272. Conine, K. H., B. W. Anderson, R. D. Ohmart, and J. F. Drake.
 1979. Responses of riparian species to agricultural habitat conversions. *In* Strategies for Protection and Management of Floodplain Wetlands and Other Riparian Ecosystems, Proc. Symp. [Callaway Gardens, Ga., Dec. 11-13, 1978]. p. 248-262. USDA For. Serv.

Gen. Tech. Rep. WO-12. Washington, D.C.

- 273. Conner, R. N.1973. Screech owl displaces nesting pileated woodpeckers. Bird-Banding 44(4):316.
- 274. Conner, R. N. 1973. Woodpecker utilization of cut and uncut woodlands. M.S. thesis. Va. Polytech. Inst. and State Univ., Blacksburg. 82 p.
- 275. Conner, R. N.
 1974. Red-bellied woodpecker predation on nestling Carolina chickadees. Auk 91:836.
- 276. Conner, R. N.1974. The pileated woodpecker. Wildl. N.C. 36(6):24.277. Conner, R. N.
- 1975. Orientations of entrances to woodpecker nest cavities. Auk 92:371–374.
- 278. Conner, R. N.
 1976. Nesting habitat for red-headed woodpeckers in southwestern Virginia. Bird-Banding 47(1):40–43.
- 279. Conner, R. N.1977. The effect of tree hardness on woodpecker nest entrance orientation. Auk 94(2):369-370.
- 280. Conner, R. N.
 1977. Use of woodpecker foraging sites by other species.
 Raven 48(1):28-29.

- 281. Conner, R. N.
 1978. Snag management for cavity nesting birds. *In*Management of Southern Forests for Nongame Birds,
 Workshop Proc. [Atlanta, Ga., Jan. 24–26, 1978].
 p. 120–128. USDA For. Serv. Gen. Tech. Rep. SE–14.
- Conner, R. N., and C. S. Adkisson.
 1974. Eastern bluebirds nesting in clearcuts. J. Wildl. Manage. 38(4):934–935.

Southeast. For. Exp. Stn., Asheville, N.C.

- 283. Conner, R. N., and C. S. Adkisson.
 1976. Discriminant function analysis: a possible aid in determining the impact of forest management on woodpecker nesting habitat. For. Sci. 22(2):122-127.
- 284. Conner, R. N., and C. S. Adkisson.
 1977. Principal component analysis of woodpecker nesting habitat. Wilson Bull. 89(1):122–129.
- Conner, R. N., and H. S. Crawford.
 1974. Woodpecker foraging in Appalachian clearcuts. J. For. 72(9):564–566.
- 286. Conner, R. N., R. G. Hooper, H. S. Crawford, and H. S. Mosley.
 1975. Woodpecker nesting habitat in cut and uncut woodlands in Virginia. J. Wildl. Manage. 39(1): 144-150.
- 287. Conner, R. N., and J. C. Kroll.
 1979. Food-storing by yellow-bellied sapsuckers. Auk
 96(1):195.
- 288. Conner, R. N., O. K. Miller, Jr., and C. S. Adkisson. 1976. Woodpecker dependence on trees infected by fungal heart rots. Wilson Bull. 88(4):575–581.
- 289. Conner, R. N., J. W. Via, and I. D. Prather.
 1979. Effects of pine-oak clearcutting on winter and breeding birds in southwestern Virginia. Wilson Bull.
 91(2):301-316.
- 290. Conway, W. G.
 1957. Pileated woodpecker king of the woods. Anim.
 Kingdom 60:52-58.
- 291. Cooke, W. W.1888. Report on bird migration in the Mississippi Valley in the years 1884 and 1885. U.S. Dep. Agric., Div. Econ. Ornith., Bull. 2, 313 p.
- 292. Cooper, J. G.
 1876. Nesting habits of the California house wren.
 (*Troglodytes aedon* var. *parkmanni*). Bull. Nutt.
 Ornithol. Club 1:79-81.
- 293. Coppel, H. C., and N. F. Sloan.
 1970. Avian predation, an important adjunct in the suppression of larch casebearer and introduced pine sawfly populations in Wisconsin forests. Proc. Tall Timbers Conf. Ecol. Anim. Control by Habitat Manage. 2: 259–272.
- 294. Cottam, C.
 1939. Food habits of North American diving ducks. U.S.
 Dep. Agric. Tech. Bull. 643, 140 p. Washington, D.C.
- 295. Coues, E.1878. The cave, cliff, or crescent swallow (*Petrochelidon lunifrons*). Bull. Nutt. Ornithol. Club 3:105–112.
- 296. Coues, E.
 1892. Original description of Lewis's woodpecker. Auk
 9(4):394.
- 297. Coulter, M. W., W. Crenshaw, G. Donovan, and J. Dorso. 1979. An experiment to establish a goldeneye population. Wildl. Soc. Bull. 7(2):116–118.

 Court, E. J.
 1924. Black vulture (*Coragyps urubu*) nesting in Maryland. Auk 41(3):475–476.

299. Cowley, R. D.
1971. Birds and forest management. Aust. For. 35(4):
234–250.

300. Craig, T. H., and C. H. Trost.
1979. The biology and nesting density of breeding
American kestrels and long-eared owls on the Big Lost
River, southeastern Idaho. Wilson Bull. 91(1):50-61.

301. Craighead, F. C.

1950. Insect enemies of eastern forests. U.S. Dep. Agric. Misc. Publ. 657, 679 p. Washington, D.C.

Craighead, J. J., and F. C. Craighead, Jr.
 1969. Hawks, owls and wildlife. 429 p. Dover Publications, Inc., New York.

303. Cramer, O. P., ed.

1974. Environmental effects of forest residues in the Pacific Northwest: a state-of-knowledge compendium. USDA For. Serv. Gen. Tech. Rep. PNW-24, 517 p. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

304. Crawford, H. S., and R. W. Titterington.
1979. Effects of silvicultural practices on bird communities in upland spruce-fir stands. *In* Management of North Central and Northeastern Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23-25, 1979]. p. 110-119. USDA For. Serv. Gen. Tech. Rep. NC-51. North Cent. For. Exp. Stn., St. Paul, Minn.

305. Criddle, N.

1927. Habits of the mountain bluebird in Manibota. Can. Field.-Nat. 61(1):40-44.

306. Cringan, A. T.

1971. Status of the wood duck in Ontario. Trans. North Am. Wildl. Nat. Resour. Conf. 36:296-312.

307. Crockett, A. A., and H. H. Hadow. 1975. Nest site selection by Williamson and red-naped sapsuckers. Condor 77(3):365–368.

308. Crockett, A. B., and P. L. Hansley.
1977. Coition, nesting, and post-fledgling behavior of Williamson's sapsucker in Colorado. Living Bird 16:7-19.

309. Crosby, G. T.

1971. Ecology of the red-cockaded woodpecker in the nesting season. M.S. thesis. Univ. Fla., Gainesville.

310. Crosby, G. T.

1971. Home range characteristics of the red-cockaded woodpecker in north-central Florida. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. p. 60–73. U.S. Dep. Interior, Bur. Sport Fish. and Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]

311. Cuisin, M.

1967. *Dryocopus martius* in the forest. Rev. For. Franc. 19(1):1–12.

312. Currier, E. S. 1928. Lewis woodpeck

1928. Lewis woodpeckers nesting in colonies. Condor 30:356.

313. Curtis, R. L., and T. H. Ripley.

1975. Water management practices and their effect on non-game bird habitat values in a deciduous forest community. *In* The Symposium on the Management of Forest and Range Habitats for Nongame Birds, Proc. [Tucson, Ariz., May 1975]. p. 128–143. USDA For. Serv. Gen. Tech. Rep. WO-1. Washington, D.C.

314. Czuhai, E.

1968. A resume of prescribed burning of the Piedmont National Wildlife Refuge. USDA For. Serv. Res. Note SE-86. South. For. Exp. Stn., Asheville, N.C.

315. Czuhai, E.

1971. Synoptic review of forest resource and use within the range of the red-cockaded woodpecker. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. p. 108–124. U.S. Dep. Interior, Bur. Sport Fish. and Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]

316. Dahlsten, D. L.

1978. California birds eat bugs too. USDA Douglas-fir Tussock Moth Program Newsl. 27, 4 p.

317. Dahlsten, D. L., and S. G. Herman.1965. Birds and predators of destructive forest insects.Calif. Agric. 19:8-10.

318. Dahms, W. G.

1949. How long do ponderosa pine snags stand? USDA For. Serv., Pac. Northwest For. Range Exp. Stn., Res. Note 57, 3 p. Seattle, Wash.

319. Dales, M.

1926. A house wren study. Wilson Bull. 38:14-16.

320. Dalke, P. D.

1973. A partial bibliography of Idaho wildlife. Idaho Fish and Game Dep., Moscow, Wildl. Bull. 6, 132 p.

321. Dambach, C. A., and E. E. Good.

1940. The effect of certain land use practices on populations of breeding birds in Southwestern Ohio. J. Wildl. Manage. 4(1):63-76.

322. Danforth, C. G.

1938. Some feeding habits of the red-breasted sapsucker. Condor 40:219–224.

323. Davey, J. H.

1963. Nest boxes for birds of prey. Countryside 19: 365–366.

324. Davidson, R. W., W. A. Campbell, and D. B. Vaughn.
1942. Fungi causing decay of living oaks in the eastern
United States and their cultural identification. U.S.
Dep. Agric. Tech. Bull. 785, 65 p. Washington, D.C.

325. Davie, O.

1904. The purple martin. Am. Ornithol. 4:260-263.

326. [Citation deleted.]

327. Davis, C. M.

1979. A nesting study of the brown creeper. Living Bird 17:237-263.

328. Davis, D. E.

1954. The breeding biology of Hammond's flycatcher. Auk 71:164–171.

329. Davis, D. E.

1959. Observations on territorial behavior of least flycatchers. Wilson Bull. 71:73–85. 330. Davis, J.

1965. Natural history, variation and distribution of the Strickland's woodpecker. Auk 82:537–590.

331. Davis, J., G. F. Fisler, and B. S. Davis.

1963. The breeding biology of the western flycatcher. Condor 65(5):337–328.

332. Davis, M.

1939. General and Mother Martin. Chat 3:22-24.

333. Davis, P. R.

1976. Response of vertebrate fauna to forest fire and clearcutting in south-central Wyoming. Final report, Co-op Study 16–391-CA and 16–46A-CA, 94 p. USDA For. Serv. and Univ. Wyo., Laramie.

334. Davis, W. B.

1934. Bird notes from Owyhee County, Idaho. Murrelet 15(3):69–72.

335. Davis, W. B.

1935. An analysis of the bird population in the vicinity of Rupert, Idaho. Condor 37(5):223–238.

336. Davis, W. H.

1941. Chickadees nesting in vacant hornets' nest. Oologist 58:145–146.

337. Dawson, D. K.

1979. Bird communities associated with succession and management of lowland conifer forests. *In* Management of North-central and Northeastern Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23–25, 1979]. p. 120–131. USDA For. Serv. Gen. Tech. Rep. NC–51. North Cent. For. Exp. Stn., St. Paul, Minn.

338. Deep, H.

1963. On the density of some woodpeckers in the Muritz region. Ornithol. Mitteil. 15(4):81-83.

339. DeGraaf, R. M.

1975. Suburban habitat associations of birds. Ph.D. diss. Univ Mass., Amherst. 295 p.

340. DeGraaf, R. M.

1978. New life from dead trees. Nat. Wildl. 16(4):28-31.

341. DeGraaf, R. M.

1978. Management of Southern Forests for Nongame Birds, Workshop Proc. [Atlanta, Ga., Jan. 24-26, 1978]. USDA For. Serv. Gen. Tech. Rep. SE-14, 175 p. Southeast. For. Exp. Stn., Asheville, N.C.

342. DeGraaf, R. M., tech. coord.

1978. The workshop on Nongame Bird Habitat Management in the Coniferous Forests of the Western United States, Proc. [Portland, Oreg., Feb. 7-9, 1977]. USDA For. Serv. Gen. Tech. Rep. PNW-64, 100 p. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

343. DeGraaf, R. M.

1978. The importance of birds in ecosystems. *In* The Workshop on Nongame Bird Habitat Management in Coniferous Forests of the Western United States, Proc. [Portland, Oreg., Feb. 7–9, 1977]. p. 5–11. USDA For. Serv. Gen. Tech. Rep. PNW–64. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

344. DeGraaf, R. M., and K. E. Evans.

1979. Management of North-Central and Northeastern Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23–25, 1979]. USDA For. Serv. Gen. Tech. Rep. NC-51, 268 p. North Cent. For. Exp. Stn., St. Paul, Minn.

345. DeGraaf, R. M., and B. R. Payne.

1975. Economic values of non-game birds and some urban wildlife research needs. *In* Trans. 40th North Am. Wildl. Nat. Resour. Conf. p. 281–287.

346. DeGraaf, R. M., and J. W. Thomas.

1976. Wildlife habitat in or near human settlements. *In*Trees and forests for human settlements. p. 417. Univ.
Toronto Press.

347. Dehnel, P. A.

1948. Analysis of variation in some western races of the hairy woodpecker, *Dendrocopos villosus*. M.A. thesis. Univ. Calif., Berkeley.

348. de Kiriline, L.

1954. Irrepressible nuthatch. Audubon 56(6):264–267.

349. de Kiriline, L.

1948. Least flycatcher. Audubon 50:149-153.

350. de Kiriline, L.

1952. Red-breast makes a home. Audubon 54(1-2): 16-21.

351. Delacour, J.

1951. The significance of the number of toes in some woodpeckers and kingfishers. Auk 68:49–51.

352. Dell, J. D

1979. Utilization of forest residues for firewood on the National Forests of Oregon and Washington. USDA For. Serv., R6 Fuels Manage. Notes. 6 p. Pac. Northwest Reg., Portland, Oreg.

353. Dennis, J. V.

1964. Woodpecker damage to utility poles: with special reference to the role of territory and resonance. Bird-Banding 35:225–253.

354. Dennis, J. V.

1967. The ivory-bill flies still. Audubon 69(6):38–45.

355. Dennis, J. V.

1968. Rare red-cockaded woodpecker under study at Hobcaw. Catalyst II:12–14.

356. Dennis, J. V.

1969. The yellow-shafted flicker (*Colaptes auratus*) on Nantucket Island, Massachusetts. Bird-Banding 40: 290–308.

357. Dennis, J. V.

1971. Species using red-cockaded holes in northeastern South Carolina. Bird-Banding 42(2):79–87.

358. Dennis, J. V.

1971. Utilization of pine resin by the red-cockaded woodpecker and its effectiveness in protecting roosting and nest sites. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. p. 78–86. U.S. Dep. Interior, Bur. Sport Fish. and Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]

359. Dennis, J. V.

1979. The ivory-billed woodpecker, *Campephilus principalis*. Avic. Mag. 85(2):75–84.

360. Densmore, M.

1925. A day with a wren family. Bird-Lore 27:101-102.

361. Deusing, M.

1942. A range and population study of the purple martin in Wisconsin. Passenger Pigeon 4:17-21.

362. DeVilliers, J.

1957. Intercommunication of woodpeckers. Bokmskiere 9:45.

363. De Vore, N.

1979. Pileated woodpecker sighted in Oklahoma County, Oklahoma. Bull. Okla. Ornithol. Soc. 12(3):23.

364. DeWeese, L. R., R. E. Pillmore, and M. L. Richmond. 1975. A device for inspecting nest cavities. Bird-Banding 46(2):162-165.

365. Dexter, R. W.

1950. Banding chimney swifts. Audubon 52(3):158-161.

366. Dexter, R. W.
1950. Six-year diary of two chimney swifts. Bird-Banding 21(3):99-104.

367. Dexter, R. W.

1951. Diary of five chimney swifts. Ohio J. Sci. 51(1): 42-46.

368. Dexter, R. W.
1952. Hazardous nesting of the chimney swift. Auk
69(3):289-293.

369. Dexter, R. W.

1952. Extra-parental cooperation in the nesting of chimney swifts. Wilson Bull. 64(3):133–139.

370. Dexter, R. W.

1979. Selection and constancy of nest site by nesting chimney swifts. Ohio J. Sci. 79:98.

371. Dexter, R. W.
1979. Fourteen-year life history of a banded chimney swift. Bird-Banding 50(1):30–33.

372. Dickey, S. S.

1914. Nesting of the white-breasted nuthatch in central Pennsylvania. Oologist 31:66–67.

373. Dickson, J. G.

1978. Forest bird communities of the bottomland hardwoods. *In* Management of Southern Forests for Nongame Birds, Workshop Proc. [Atlanta, Ga., Jan 24–26, 1978]. p. 66–73. USDA For. Serv. Gen. Tech. Rep. SE-14. Southeast. For. Exp. Stn., Ashville, N.C.

374. Dickson, J. G., and C. A. Segelquist.1979. Breeding bird populations in pine and pine-hardwood forests in Texas. J. Wildl. Manage.43(2):549-555.

375. Dickson, J. G., and C. A. Segelquist.
1979. Winter bird populations in pine and pine-hardwood forest stands in east Texas. Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies 31: 134-137.

Diem, K. L., and R. W. Fautin.
1975. Birds and mammals. *In* The Medicine Bow ecology project final report 14-06-D-7198. p. 76-81. U.S.
Dep. Interior, Bur. Reclam., Denver, Colo.

377. Dingle, E. V. S.
1926. Red-cockaded woodpeckers in

1926. Red-cockaded woodpeckers in cornfields. Bird-Lore 28(2):124–125.

378. Dirk-Edmunds, J. C.

1947. A comparison of biotic communities of the cedar-hemlock and oak-hickory associations. Ecol. Monogr. 17:235–260.

379. Dixon, J. S.

1938. Birds and mammals of Mt. McKinley National Park. U.S. Dep. Interior, Natl. Park Serv., Fauna Ser. 3, 236 p. U.S. Gov. Print. Off., Washington, D.C.

380. Dixon, K. L.

1949. Behavior of the plain titmouse. Condor 51: 110-136.

381. Dixon, K. L.

1955. An ecological analysis of the interbreeding of crested titmice in Texas. Univ. Calif. Publ. Zool. 54:125-205

382. Dixon, K. L., and R. A. Stefanski.
1970. An appraisal of the song of the black-capped chickadee. Wilson Bull. 82(1):53-62.

383. Dixon, K. L., R. A. Stefanski, and F. N. Folks.
1970. Acoustic signals in the mating of mountain and black-capped chickadee. Auk 87:322-328.

384. Doerksen, G. P.

1969. An analysis of barn owl pellets from Pitt Meadows, British Columbia. Murrelet 50(1):4-8.

385. Doty, H. A., and A. D. Kruse.
1972. Techniques for establishing local breeding populations of wood ducks. J. Wildl. Manage. 36(2):
428-435.

 Dowden, P. B., H. A. Jaynes, and V. M. Carolin.
 1953. The role of birds in a spruce budworm outbreak in Maine. J. Econ. Entomol. 46(2):307-312.

387. Downing, G. R.

1970. The winter habits of the northern pileated woodpecker in Iowa. Iowa Bird Life 10(3):43-46.

388. Dreis, R. E., and G. O. Hendrickson.
1952. Wood duck proeuction from nest-boxes and
natural cavities on the Lake Odessa area, Iowa, in
1951. Iowa Bird Life 22(2):18-22.

Drobney, R. D., and L. H. Frederickson.
 1979. Food selection by wood ducks in relation to breeding status. J. Wildl. Manage. 43(1):109-120.

390. Duderstadt, H.

1964. The effect of hole-breeding birds on the insect and spider fauna of a young oak stand. I. Problem, methods, and comparison of plots. Z. Angew. Zool. Berlin 51(2):129–177.

391. Duncan, S.1962. Wasp attack on a flicker. Auk 79:47.

392. Dunn, H. H. 1901. The spotted owl. Oologist 18:165–167.

393. Dury, C.

1877. Fecundity of the Carolina wren (*Thryothorus ludovicianus*). Bull. Nutt. Ornithol. Club 2:50.

394. Dustan, T. C.

1968. A camera research apparatus for investigating nests of cavity or canopy nesting birds. Loon 40(4):115-117.

395. Eastman, W. R., Jr.

1960. Eating of tree seeds by birds in central Oregon.
Oreg. For. Res. Cent., Corvallis, Res. Note 42, 24 p.

396. Eckert, K.

1979. First boreal owl nesting record south of Canada: a diary. Loon 51(1):20-27.

397. Eddy, G.

1975. Downy woodpecker learns to exploit a new food source. Murrelet 56(3):20.

398. Edgar, M.

1943. Tufted titmouse nesting in Minnesota. Flicker

399. Edgerton, P. J., and J. W. Thomas.
1977. Impacts of silviculture on wildlife habitation in the Blue Mountains. *In* Integration of Forest Resource Management in the Blue Mountains: Seminar Proc. [LaGrande, Oreg., March 1977]. p. 61-63. Oreg. State Univ. Ext. Serv. and Blue Mt. Chap. Soc. Am. For.

400. Edgerton, P. J., and J. W. Thomas.

1978. Silviculture options and habitat values in coniferous forests. *In* The Workshop on Nongame Bird Habitat Management in Coniferous Forests of Western United States, Proc. [Portland, Oreg., Feb. 7–9, 1977]. USDA For. Serv. Gen. Tech. Rep. PNW-64. p. 56–65. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

401. Edson, J. M.

1942. A study of the violet-green swallow. Auk 60(3):396–403.

402. Edwards, M. G.

1978. Raptor management. *In* Management of Southern Forests for Nongame Birds, Workshop Proc. [Atlanta, Ga., Jan. 24–26, 1978]. p. 129–134. USDA For. Serv. Gen. Tech. Rep. SE–14. Southeast. For. Exp. Stn., Ashville, N.C.

403. Edwards, R. V.

1961. Range expansion of the house finch into British Columbia. Murrelet 42(3):38–42.

404. Edwards, W. R., and J. A. Ellis.

1969. Responses of three avian species to burning. Wilson Bull. 81(3):338–339.

405. Eifrig, C. W. G.

1927. Some notes on pileated woodpeckers. Wilson Bull. 39:174–175.

406. Elliott, C.

1954. Woodman, spare that "wolf" tree! Am. For. 51(10):489-490.

407. Elrod, M.

1904. Birds in their relation to agriculture. 32 p. Univ. Mont., Missoula.

408. Embry, R. W.

1963. Estimating how long western hemlock and western redcedar trees have been dead. USDA For. Serv. Res. Note NOR-2, 2 p. North. For. Exp. Stn., Juneau, Alaska.

409. Emlen, J. T., Jr.

1937. Bird damage to almonds in California. Condor 39:192–197.

410. Emlen, J. T.

1954. Territory nest building and pair formation in the cliff swallow. Auk 71:16–35.

411. Emlen, J. T.

1970. Habitat selection by birds following a forest fire. Ecology 51(2):343-345.

412. Emlen, J. T.

1974. An urban bird community in Tucson, Arizona: derivation, structure, regulation. Condor 76:184–197.

413. Emlen, J. T.

1971. Population densities of birds derived from transect counts. Auk 88:323–342.

414. Enemar, A., and B. Sjostrand.

1972. Effects of the introduction of pied flycatchers (*Ficedula hypoleuca*) on the composition of a passerine bird community. Ornis. Scand. 3(2):79–89.

415. Engle-Wilson, R. W., and R. D. Ohmart.

1979. Floral and attendant faunal changes on the lower Rio Grande between Fort Quitman and Presidio, Texas. *In* Strategies for Protection and Management of Floodplain Wetlands and Other Riparian Ecosystems, Proc. Symp. [Callaway Gardens, Ga., Dec. 11-13, 1978]. p. 139–147. USDA For. Serv. Gen. Tech. Rep. WO–12. Washington, D.C.

416. England, E. G.

1940. A nest of the arctic three-toed woodpecker. Condor 42(5):242–245.

417. Engler, C. H.

1938. A preliminary report on the birds of Moscow, Idaho, and vicinity. M.S. thesis. Univ. Idaho, Moscow. 35 p.

418. Englerth, G. H.

1947. Decay of sitka spruce in southeastern Alaska. J. For. 45:894–900.

419. Erdman, T. C.

1979. Boreal owl in N.E. Wisconsin. Passenger Pigeon 41(2):58-59.

420. Erdmann, G. G., and R. R. Oberg.

1974. Sapsucker feeding damages crown-released yellow birch trees. J. For. 72(12):760–763.

421. Ericksen, W. J.

1935. European starling nesting at Savannah, Ga. Auk 52(3):313.

422. Eriksson, M. O. G.

1979. Competition between freshwater fish and goldeneyes, *Bucephala clangula*, for common prey. Oecologia (Berl.) 41(1):99–107.

423. Erskine, A. J.

1959. A method of opening nesting holes. Bird-Banding 39:181.

424. Erskine, A. J.

1960. Nest site tenacity and homing in the bufflehead. Auk 78:389–396.

425. Erskine, A. J.

1960. Further notes on interspecific competition among hole-nesting ducks. Can. Field-Nat. 74:161–162.

426. Erskine, A. J.

1964. Nest-site competition between bufflehead, mountain bluebird and tree swallow. Can. Field-Nat. 78(3):202-203.

427. Erskine, A. J.

1971. A preliminary catalogue of bird census studies in Canada. Can. Wildl. Serv. Prog. Notes 20, Ottawa, Ont.

428. Erskine, A. J.

1971. Bufflehead. Can. Wildl. Serv. Monogr. Ser. 4, 240 p.

429. Erskine, A. J.

1978. The first ten years of the co-operative breeding bird survey in Canada. Can. Wildl. Serv. Rep. Ser. 42, 61 p.

430. Erskine, A. J.

1978. Durability of tree holes used by buffleheads. Can. Field-Nat. 92:94–95.

431. Erskine, A. J., and W. D. McLaren.

1972. Sapsucker nest holes and their use by other species. Can. Field-Nat. 86(4):357–361.

432. Erskine, A. J., and W. D. McLaren.

1976. Comparative nesting biology of some hole-nesting birds in the Caribou Parklands, British Columbia. Wilson Bull. 88(4):611–619.

433. Erwin, W. J., and R. H. Stasiak.

1979. Vertebrate mortality during the burning of a reestablished prairie in Nebraska. Am. Midl. Nat. 101(1):247–249.

434. Eshbaugh, B. K., and W. H. Eshbaugh.

1979. Removal of fur from a live raccoon by tufted titmice. Wilson Bull. 91(2):328.

- 435. Etheridge, D. E., H. M. Craig, and S. H. Farris.
 1972. Infection of western hemlock by the Indian paint fungus via living branches. Can. Dep. Environ., Bimonth. Res. Notes 28:3-4.
- 436. Euler, D. L., and D. Q. Thompson.1978. Ruffed grouse and songbird foraging response on small spring burns. N.Y. Fish Game J. 25(2):156-164.
- 437. Evans, F. C., and J. T. Emlen, Jr. 1947. Ecological notes on the prey selected by a barn owl. Condor 49(1):3-9.
- 438. Evans, K. E.
 1978. Oak-pine and oak-hickory forest bird communities and management options. *In* Management of Southern Forests for Nongame Birds, Workshop Proc. [Atlanta, Ga., Jan. 24–26, 1978]. p. 76–89. USDA For. Serv. Gen. Tech. Rep. SE–14. Southeast. For. Exp. Stn.,
- 439. Evans, K. E.1978. Forest management opportunities for song-birds.In North American Wildlife and Natural ResourceConf. Proc., vol. 43.

Asheville, N.C.

- 440. Evans, K. E., and R. N. Conner.
 1979. Snag management. *In* Management of North Central and Northeastern Forests for Nongame Birds,
 Workshop Proc. [Minneapolis, Minn., Jan. 23–25,
 1979]. p. 214–225. USDA For. Serv. Gen. Tech. Rep. NC-51. North Cent. For. Exp. Stn., St. Paul, Minn.
- 441. Evans, K. E., and R. R. Kerbs.
 1977. Avian use of livestock watering ponds in western South Dakota. USDA For. Serv. Gen. Tech. Rep. RM-35, 11 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.
- 442. Evans, K. E., and G. E. Probasco.1977. Wildlife of the prairies and plains. USDA For.Serv. Gen. Tech. Rep. NC-29, 18 p. North Cent. For.Exp. Stn., St. Paul, Minn.
- 443. Evans, R. D.
 1974. Wildlife habitat management program. A concept of diversity for the public forests in Missouri. *In*Timber-Wildlife Management Symposiums. p. 73-83.
 J. P. Slusher and T. M. Hinckley, eds. Mo. Acad. Sci. Occas. Pap. 3. Columbia, Mo.
- 444. Evans, W. G.1972. The attraction of insects to forest fires. Proc. TallTimbers Conf. on Ecol. Animal Control by HabitatManagement 3:115-127.
- 445. Everman, B. W.
 1882. Black-crested flycatcher. Ornithol. and Ool.
 7:169-170, 177-179.
- 446. Ezerskas, L. I.
 1959. The use of articicial nesting places as a means of attracting birds which nest in hollow trees in the Lithuanian Soviet Socialist Republic. *In Proc.* 3d Baltic Ornithol. Conf. 1957. p. 105-109.
- 447. Evenden, F. G.1947. The bufflehead nesting in Oregon. Condor 49:169.448. Evenden, F. G.
 - 1975. Direct interactions between humans and birds. *In* Symposium on Management of Forest and Range Habitats for Nongame Birds, Proc. [Tucson, Ariz., May 6–8, 1975]. p. 11–14. USDA For. Serv. Gen. Tech. Rep. WO-1. Washington, D.C.

- 449. Fahnestock, G. R.
 1970. Two keys for appraising forest fire fuels. USDA
 For. Serv. Res. Pap. PNW-99, 26 p. Pac. Northwest
 For. and Range Exp. Stn., Portland, Oreg.
- 450. Farb, P.
 1962. Woodpeckers are remarkable. Am. For. 68(8):
 32-35.
- 451. Farber, H.
 1972. Evidence of two tree swallow females sharing the same nest box. Wilson Bull. 84(2):204.
- 452. Farbotnik, S.1978. A diary of the nesting of saw-whet owls in Bucks County, Pa. Cassinia No. 57, p. 29-33.
- 453. Fassler, D. J.
 1975. Red bat hibernating in a woodpecker hole. Am.
 Midl. Nat. 93(1):254.
- 454. Fellowes, E. C. 1967. Kestrel and barn owl sharing entrance to nest-sites. Brit. Birds 60(12):522-523.
- 455. Fernald, R. H.1890. Nesting of the red-breasted nuthatch in Orono,Maine. Ornithol. and Ool. 15:40-41.
- 456. Ferris, C. R.1979. Effects of Interstate 95 on breeding birds in northern Maine. J. Wildl. Manage. 43(2):421-427.
- 457. Fetterolf, P. M.
 1979. Intraspecific food theft by the American kestrel.
 Can. Field-Nat. 93(2):198.
- 458. Fichter, E.
 1960. A red-headed woodpecker seen in Idaho. Tebiwa
 (J. Idaho State Univ. Mus.) 3:41-42.
- 459. Filix, J.1974. Garden and field birds' eggs and nests. 183 p. Octopus Books, Ltd., London.
- 460. Finley, W. L. 1906. The chickadee at home. Condor 8:63–67.
- Fischer, W.
 1963. Die Geier. A. Ziemsen Verlag, Wittenburg, Lutherstadt, Germany.
- 462. Fisher, A. K.
 1892. Myiarchus nuttingi in Arizona. Auk 9(4):394.
 463. Fisher, A. K.
- 1893. The hawks and owls of the United States and their relation to agriculture. Bull. 3, 210 p. U.S. Gov. Print. Off., Washington, D.C.
- 464. Fisher, E. L., J. F. Husley, and C. Price. 1978. Fuels management and wildlife. Coordination guidelines for wildlife habitats, No. 10, 14 p. USDA For. Serv., Calif. Reg., San Francisco.
- 465. Fisher, W. R.1907. Dr. Schlich's manual of forestry, vol. 4. Bradbury,Agnew and Co., London.
- 466. Fiske, G. W., Jr.1905. The olive-sided flycatcher. Bird-Lore 7:195-196.467. Fitter, R. S. R.
 - 67. Fitter, R. S. R. 1960. Birds and forest. Nature (London) 185(4715): 731-732.
- 468. Fitzner, R., and J. N.1973. The hooded merganser in southeastern Washington. Murrelet 54(1):10-11.

469. Flack, J. A. D.

1976. Bird populations of aspen forests in Western North America. Ornithol. Monogr. 19, 97 p. Am. Ornithol. Union.

470. Fleming, J. H.

1901. A list of the birds of the districts of Parry Sound and Muskoka, Ontario. Auk 18(1):33-45.

471. Fleming, R. C.

1979. Possibly altruistic behavior in a white-breasted nuthatch. Jack-Pine Warbler 57(4):217.

472. Fletcher, L. B.

1944. Unusual nesting of house wrens. Bird-Banding 15:160–161.

473. Floyd, E. H., L. Mason, and S. Phillips.

1970. Survival of overwintering southwestern corn borers in corn stalks in Louisiana. *In* Proc. Tall Timbers Conf. on Ecol. Animal Control by Habitat Management 2:293-303.

474. Forbes, J. E., and D. W. Warner.

1974. Behavior of a radio-tagged saw-whet owl. Auk 91: 783-795.

475. Forbush, E. H.

1912. The chickadee. Bird-Lore 14:372-375.

476. Forbush, E. H., and J. B. May.

1939. A natural history of American birds of eastern and central North America. 552 p. Bramhall House, New York.

477. Foreman, L. D.

1976. Nest site and activity of an incubating common merganser in northwestern California. Calif. Fish and Game 62(1):87–88.

478. Foreman, L. D.

1979. Flock size and density of common mergansers in northwestern California. Calif. Fish and Game 65(2): 124–127.

479. Forsman, E.

1970. Saw-whet preys on red tree mice. Murrelet 51(1):10.

480. Forsman, E.

1976. The spotted owl in Oregon. M.S. thesis. Oreg. State Univ., Corvallis. 131 p.

481. Foster, W. L., and J. Tate, Jr.

1966. The activities and coactions of animals at sapsucker trees. Living Bird 5:87-113.

482. Fowler, A.

1968. The chickadee. Am. Nat. 1:584-587.

483. Franzreb, K. E.

1975. The effects of timber harvesting on an avian community in a mixed-coniferous forest, White Mountains, Arizona. Ph.D. diss. Ariz. State Univ., Tempe. 205 p.

484. Franzreb, K. E.

1976. Nest site competition between mountain chickadees and violet-green swallows. Auk 93:836–837.

485. Franzreb, K. E.

1977. Inventory techniques for sampling avian populations. U.S. Dep. Interior, Bur. Land Manage. Tech. Note 307, 17 p.

486. Franzreb, K. E.

1977. Bird population changes after timber harvesting of a mixed conifer forest in Arizona. USDA For. Serv. Res. Pap. RM-184, 26 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

487. Franzreb, K. E., and A. E. Higgins.
1975. Possible bear predation on a yellow-bellied sapsucker nest. Auk 92(4):817.

488. Franzreb, K. E., and R. D. Ohmart.

1979. The effects of timber harvesting on breeding birds in a mixed coniferous forest. Condor 80:431-441.

489. Frederich, D. J., and A. D. Partridge.

1977. Indicators of decay in the grand fir/white fir complex in central Idaho. Northwest Sci. 51(4):282-292.

490. Freemark, K. E., C. R. Cooper, G. H. Finney, and A. J. Erskine.

1979. The co-operative breeding bird survey in Canada, 1978. Can. Wildl. Serv. Prog. Notes 99, 21 p.

491. Freiberger, W.

1927. The bird protection question with special reference to a scientific foundation for a economic protection of birds. Allg. Forst und Jagdztg. 103:19–30, 49–63, 92–114.

492. Frischknecht, Neil C.

1975. Native faunal relationships within the pinyon-juniper ecosystem. *In* Pinyon-Juniper Ecosystem: A Symposium. p. 55-65. Utah State Univ., Coll. Nat. Resour., Utah Agric. Exp. Stn., Logan.

493. Furniss, R. L., and V. M. Carolin. 1977. Western forest insects. USDA For. Serv. Misc.

Publ. 1339, 654 p. Washington, D.C.

494. Fyte, R. W., and R. R. Olendorff.1976. Minimizing the dangers of nesting studies to raptors and other sensitive species. Can. Wildl. Serv. Occas. Pap. 23, 17 p. Ottawa, Ont.

495. Gabrielson, I. N., and S. G. Jewett. 1940. Birds of Oregon. 650 p. Oreg. State Coll.,

Corvallis.

496. Gabrielson, I. N., and F. C. Lincoln.1959. The birds of Alaska. 922 p. The Stackpole Co., Harrisburg, Pa.

497. Gage, S. H., and C. A. Miller.

1978. A long-term bird census in spruce budworm-prone balsam fir habitats in northwestern New Brunswick. Maritimes For. Res. Cent., Infor. Rep. M-X-84, Fredericton, N.B.

498. Gaidula, P.

1976. Wildland fuel management: guidelines for the California State Park system. 47 p. Calif. State Dep. Parks and Recreation, Resour. Agency.

499. Gale, R. M.

1973. Snags, chainsaws, and wildlife: one aspect of habitat management. *In* 4th Annu. Joint Conf. Am. Fish. Soc. and Wildl. Soc., Calif. Chap. 20 p.

500. Gale, R. M., W. F. Kelly, and J. A. Lorenyana. 1973. Snag management. Coordinating guidelines for wildlife habitats, No. 1. 11 p. USDA For. Serv., Calif.

501. Galli, A. E., C. F. Leck, and R. T. Forman.

Reg., San Francisco.

1976. Avian distribution patterns in forest islands of different sizes in central New Jersey. Auk 93(2):356–364.

502. Galli, J. M.

1979. Non-game bird habitat management in New Jersey forests. *In* Management of North Central and Northeastern Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23–25, 1979]. p. 245–248. USDA For. Serv. Gen. Tech. Rep. NC-51. North Cent. For. Exp. Stn., St. Paul, Minn.

503. Gallup, F.

1917. A substitute for a hollow limb. Bird-Lore 19:139–141.

504. Gander, F. F.

1922. The brown-headed nuthatch. Bird-Lore 24: 328–330.

505. Gander, F. F.

1960. Western bluebirds in my garden. Audubon Mag. 62:70–71, 83.

506. Gardner, B. B.

1933. The persistence of a house wren. Bird-Lore 35:151-152.

507. Garson, P. J., and M. L. Hunter, Jr.

1979. Effects of temperature and time of year on the singing behaviour of wrens, *Troglodytes troglodytes*, and great tits, *Parus major*. Ibis 121(4):481–487.

508. Gary, H. L., and M. J. Morris.

1980. Constructing wooden boxes for cavity-nesting birds. USDA For. Serv. Res. Note RM-381, 7 p. Rocky Mt. For. and Range. Exp. Stn., Fort Collins, Colo.

509. Gashwiller, J. S.

1961. Notes on the harlequin duck. Murrelet 42(1):4-5.

510. Gates, J. E.

1979. Avian nest placement in relation to plant height. Jack-Pine Warbler 57(4):191–198.

511. Gauthreaux, S. A.

1978. The structure and organization of avian communities in forests. *In* Management of Southern Forests for Nongame Birds, Workshop Proc. [Atlanta, Ga., Jan 24–26, 1978]. p. 17–37. USDA For. Serv. Gen. Tech. Rep. SE–14. Southeast. For. Exp. Stn., Asheville, N.C.

512. Gaulding, W., Jr.

1944. Crested flycatchers nesting in gourds. Oriole 9:13.

513. Geis, A. D.

1974. Effects of urbanization and types of urban development on bird populations. *In* Wildlife in an urbanizing environment. p. 97–105. J. H. Noyes and D. R. Progulske, eds. Plan. and Resour. Development Ser. 28, Holdsworth Nat. Resour. Cent., Univ. Mass., Amherst.

514. George, J. L., and R. T. Mitchell.

1948. Calculations on the extent of spruce budworm control by insectivorous birds. J. For. 46(5):454–455.

515. George, W. G.

1972. Age determination of hairy and downey woodpeckers in eastern North America. Bird-Banding 43(2):128-266.

516. Gibbon, R. S.

1966. Observations on the behavior of nesting three-toed woodpeckers in central New Brunswick. Can. Field-Nat. 80(4):223-226.

517. Gibbon, R. S.

1970. The breeding biology and food of the yellow-bellied sapsucker in New Brunswick. M.S. thesis. Biol. Dep., York Univ., Toronto, Ont.

518. Gibbs, R. M.

1961. Breeding ecology of the common goldeneye, *Bucephala clangula americana*, in Maine. M.S. thesis. Univ. Maine, Orono. 113 p.

519. Gibo, D. L., R. Stephens, A. Culpeper, and H. Dew. 1976. Nest-site preferences and nesting success of the starling, (*Sturnus vulgaris*, *L*.) in marginal and favorable habitats in Mississauga, Ontario, Canada. Am. Midl. Nat. 95(2):493–498.

520. Gignoux, C.

1924. Nesting of pygmy nuthatches at Lake Tahoe. Condor 26:31–32.

521. Gilbertson, R. L.

1974. Fungi that decay ponderosa pine. 197 p. Univ. Ariz. Press, Tucson.

522. Gilbertson, R. L., H. H. Burdsall, Jr., and M. J. Larsen. 1975. Notes on wood-rotting *Hymenomycetes* in New Mexico. Southwest. Nat. 19(4):347–360.

523. Gilbertson, R. L., K. J. Martin, and J. P. Linsey.
1974. Annotated check list and host index for Arizona
wood-rooting fungi. Univ. Ariz., Tucson, Agric. Exp.
Stn. Tech. Bull. 209, 48 p.

524. Gill, J. D., R. M. DeGraaf, and J. W. Thomas. 1974. Forest habitat management for non-game birds in central Appalachia. USDA For. Serv. Res. Note NE-192, 6 p. Northeast. For. Exp. Stn., Upper Darby, Pa.

525. Gillespie, J. A.

1924. Some nestings of the crested flycatcher. Auk 41:41–44.

526. Gillespie, M.

1930. Behavior and local distribution of tufted titmice in winter and spring. Bird-Banding 1(3):113-127.

527. Gilmer, D. S.

1971. Home range and habitat use of breeding mallards (*Anas platyrhynchos*) and wood ducks (*Aix sponsa*) in north-central Minnesota as determined by radio tracking. Ph.D. thesis. Univ. Minn., St. Paul. 142 p.

528. Gilmer, D. S., I. J. Ball, L. M. Cowardin, J. H. Riechmann, and J. R. Tester.

1975. Habitat use and home range of mallards breeding in Minnesota. J. Wildl. Manage. 39(4):781–789.

529. Gilmer, D. S., L. M. Cowardin, J. E. Mathisen, and J. H. Riechmann.

1978. Natural cavities used by wood ducks in north-central Minnesota. J. Wildl. Manage. 42(2):288–298.

530. Gingrich, W. F.

1914. Young turkey vultures. Bird-Lore 16(4):280-281.

531. Ginn, P.

1979. Birds using nest boxes. Honeyguide No. 97.

532. Gisborne, H. T.

1931. The scheme of forest fire control. J. For. 24(7): 1077–1089.

533. Givens, L. S.

1971. Introduction to the symposium on the ecology and management of the red-cockaded woodpecker. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. p. 1–3. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]

534. Glase, J. C.

1973. Ecology of social organization in the black-capped chickadee. Living Bird 12:235–267.

535. Godfrey, W. E.

1966. The birds of Canada. Natl. Mus. Can. Bull. 203, 428 p. Ottawa, Ont.

536. Godtel, D. D., J. Greer, and W. C. Ruediger. 1979. Managing snag-dependent wildlife in a managed forest. 13 p. USDA For. Serv., Kootenai Natl. For., Libby, Mont.

537. Gofman, D. N., and L. P. Ponznain.

1963. Nesting conditions for some hole-nesting birds. *In* Summaries of reports from 5th Baltic Ornithol. Conf. [Tartul. p. 45–47.

538. Goin, C. J., and O. B. Goin.

1954. Nest-building behavior of the Carolina wren. Wilson Bull. 66:59.

539. Goldberg, M.

1969. Black-capped chickadee takes over bluebird nest. Loon 41(4):131.

540. Goodwin, D.

1968. Notes on woodpeckers (*Picidae*). Bull. Brit. Mus. [Nat. Hist.] Zoology 17:1–44.

541. Gordon, D. T.

1973. Damage from wind and other causes in mixed white fir-red fir stands adjacent to clearcutting. USDA For. Serv. Res. Pap. PSW-90, 22 p. Pac. Southwest For. and Range Exp. Stn., Berkeley, Calif.

542. Gore, J. F.

1978. Wood duck response to nesting boxes placed in low quality habitat. Trans. Ill. State Acad. Sci. 71(3):295-303.

543. Goss, N.S.

1878. Breeding of the duck hawk in trees. Nutt. Ornithol. Club Bull. 3:32–34.

544. Gould, G. I.

1974. The status of the spotted owl in California. Calif. Dep. Fish and Game and USDA For. Serv. Fed. Aid Proj. W-54-R, 36 p.

545. Govan, A. C.

1948. Some wrens I have known. Bull. Mass. Audubon Soc. 32:3–8.

546. Graber, R., and J. Graber.

1979. Red-heads and pin oaks. Ill. Audubon Bull. 188, p. 35–38.

547. Grady, M. M.

1943. An adaptable Carolina wren. Oriole 8:5-6.

548. Graham, H.

1967. A habitat management plan for birds of the San Bernardino National Forest. USDA For. Serv., Calif. Reg., San Francisco.

549. Graham, S. A.

1952. Forest entomology. 351 p. McGraw-Hill Book Co., Inc.: New York, Toronto, London.

550. Grant, J.

1966. The barred owl in British Columbia. Murrelet 47(2):39–45.

551. Green, J. C., and R. B. Janssen.

1975. Minnesota birds: where, when, and how many. 217 p. Univ. Minn. Press, Minneapolis.

552. Greenway, J. C., Jr.

1958. Extinct and vanishing birds of the world. Am. Comm. for Int. Wildl. Protection Spec. Publ. 13, p. 357–362.

553. Grenquist, P.

1963. Hatching losses of common goldeneyes in the Finnish Archipelago. *In* Proc. XIII Int. Ornithol. Congr., p. 685–689.

554. Grenquist, P.

1965. Changes in abundance of some duck and seabird populations of the coast of Finland 1949–1963. Finn. Game Res. 27:1–114.

555. Griffe, W. E.

1961. Nesting of the Vaux's swift in the Willamette Valley. Murrelet 42(2):25–26.

556. Grinnell, J.

1904. The origin and distribution of the chestnut-backed chickadee. Auk 21:364–382.

557. Grinnell, J., and A. H. Miller.

1944. The distribution of the birds of California. Cooper Ornithol. Club. Pac. Coast Avifauna 27:608.

558. Grinnell, J., and T. Storer.

1924. Animal life in the Yosemite. 752 p. Univ. Calif. Press, Berkeley.

559. Gromadzka, J., and M. Gromadzki.

1978. Sklad pokarmu pisklat szpaka, *Sturnus vulgaris*, na Zulawach Wislanych. [Composition of the food of nestlings of the starling, *Sturnus vulgaris*, in Zulawy Wislane.] Acta Ornithol. (Warsaw) 16(14):335–364. [In Polish with Russian and English summary.]

560. Gromadzka, J., and M. Luniak.

1978. Pokarm pisklat szpaka, *Sturnus vulgaris*, w Warszawie. [Food composition of the starling nestlings, *Sturnus vulgaris*, in Warsaw.] Acta Ornithol. (Warsaw) 16(8):275–285. [In Polish with Russian and English summary.]

561. Guiguet, C. J.

1954. The birds of British Columbia. 6 p. Prov. Mus. Handb., Victoria, B.C.

562. Guljas, E.

[n.d.] Managing woodlands for wildlife. Management series No. 3, 10 p. Ind. Dep. Nat. Resour., Div. Fish and Wildl., Indianapolis.

563. Gullion, G. W.

1947. Use of artificial nesting sites by violet-green and tree swallows. Auk 64(3):411–415.

564. Gunderson, A.

1939. Nesting habits of the red-breasted nuthatch. Condor 41:259–260.

565. Gustafson, F. O.

1944. Cull as determined from basal wounds in Kentucky highlands timber. J. For. 42:181–184.

566. Gustafson, R. O.

1946. Forest fires, basal wounds, and resulting damage to timber in an eastern Kentucky area. Ky. Agric. Exp. Stn. Bull. 493:1–15.

567. Gutierrez, R. J., and W. D. Koening.

1978. Characteristics of storage trees used by acorn woodpeckers in two California woodlands. J. For. 76(3):162–164.

568. Gysel, L. W.

1960. An aid for climbing with a rope and saddle. J. For. 58(7):517.

569. Gysel, L. W.

1961. An ecological study of the tree cavities and ground burrows in forest stands. J. Wildl. Manage. 25(1):12–20.

570. Haapanen, A.1955. Bird fauna of the Finnish forest in relation to forest succession, vol. I and II. Ann. Zool. Fenn. 2(3):153-196.

571. Haartman, L. von. 1957. Adaptation in hole-nesting birds. Evolution 11(3):339–347.

572. Haartman, L. von. [n.d.] The nesting habits of Finnish birds. I. Passeriformes. Commentat. Biol. 32:1-187.

 573. Habeck, J. R.
 1970. Fire ecology investigations in Glacier National Park, historical considerations and current observations.
 79 p. Univ. Mont., Dep. Bot., Missoula.

574. Hadow, H. H. 1973. Winter ecology of migrant and resident Lewis' woodpeckers in southeastern Colorado. Condor 75(2):210-224.

575. Haecker, F. W.
1948. A nesting study of the mountain bluebird in Wyoming. Condor 50:216-219.
576. Haftorn, S.

1965. A method of studying the family life in holenesting birds. Det Kongelige Norske Videnskabers Selskabers Forhdndlinger 38(10):44–50.

577. Hager, D. C.1960. The interrelationships of logging, birds and timber regeneration in the Douglas-fir region of northwest California. Ecology 41(1):116–125.

578. Hahnle, H.1946. Das Schutzgebiet Behr-Steckby (Anhalt) des Reichsbundes fur Vogelschutz. Giengen (Brenz).

579. Hailman, J. P.1959. Drumming by female hairy woodpeckers. Bird-Banding 30(1):47.

580. Hair, J. D., G. T. Hepp, L. M. Luckett, K. P. Reese,

and D. K. Woodward.
1979. Beaver pond ecosystems and their relationships to multiuse natural resource management. *In* Strategies for Protection and Management of Floodplain Wetlands and Other Riparian Ecosystems, Proc. Symp. [Callaway Gardens, Ga., Dec. 11-13, 1978]. p. 80-92. USDA For. Serv. Gen. Tech. Rep. WO-12.

Washington, D.C. 581. Haldeman, J. R., R. P. Balda, and S. W. Carothers.

1973. Breeding birds of a ponderosa pine forest and a fir, pine, aspen forest in the San Francisco Mountain area, Arizona. Mus. North. Ariz. Tech. Bull. 12:1-21.

582. Hall, G. A., and N. Laitsch.
1963. Brown creeper nesting in West Virginia. Wilson
Bull. 75:278–279.

583. Hall, R. C.1942. Control of the locust borer. U.S. Dep. Agric. Circ.626, 19 p. Washington, D.C.

584. Hamel, D. R., R. D. Oakes, M. D. McGregor, and R. C.

1975. Evolution of Douglas-fir beetle infestations, North Fork Clearwater River drainage, Idaho-1974. For. Environ. Protec. Rep. 75-11, 8 p. USDA For. Serv., North. Reg., Missoula, Mont.

585. Hamilton, D. A., Jr., and B. M. Edwards.
1976. Modeling the probability of individual tree mortality. USDA For. Serv. Res. Pap. INT-185, 22 p.
Intermt. For. and Range Exp. Stn., Ogden, Utah.

586. Hamilton, R. B., and E. Noble.
1975. Plant succession and interactions with fauna. *In*Management of Forest and Range Habitats for Nongame Birds, Symp. Proc. [Tucson, Ariz., May 1975].
p. 96–114. USDA For. Serv. Gen. Tech. Rep. WO-1.
Washington, D.C.

587. Hammerstrom, F.
1942. Dominance in winter flocks of chickadees. Wilson
Bull. 54:32–42.

588. Hammerstrom, F.1972. Birds of prey of Wisconsin. 64 p. Dep. Nat.Resour., Madison, Wis.

589. Hammerstrom, F., F. N. Hammerstrom, and J. Hart. 1973. Nest boxes: an effective management tool for kestrels. J. Wildl. Manage. 37(3):400-403.

590. Hand, R. L.
1937. Notes from northern Idaho. Auk 54:97-98.

591. Hand, R. L.1939. Notes on some nesting birds in northern Idaho.Condor 41(2):84.

592. Hand, R. L. 1941. Birds of the St. Joe National Forest. Condor 43(5):220–232.

593. Haneda, K., and N. Komori.
1973. On the utilization of the nest boxes in the Togakuski Botanical Garden. Bull. Inst. Natl. Educ., Shiga Heights, 12:33-49.

594. Hansen, H. L.
1966. Silivical characteristics of tree species and decay processes as related to cavity production. p. 65-69. *In* Wood Duck Management and Research: A Symposium. L. R. Jahn, ed. Wildl. Manage. Inst., Washington, D.C.

595. Hansley, P. L.
1977. Breeding bird survey: open aspen grove—scattered conifers. Am. Birds 31:72–73.

596. Happ, G. R.1935. A study of the flicker, *Colaptes auratus*(Linnaeus). M.S. thesis. Cornell Univ., Ithaca, N.Y.

597. Haramis, G. M.
1975. Wood duck (Aix sponsa) ecology and management within the green-timber impoundments at Montezuma National Wildlife Refuge. M.S. thesis. Cornell Univ., Ithaca, N.Y. 153 p.

598. Hardin, K., and K. E. Evans.
1977. Cavity nesting bird habitat in the oak-hickory forest...a review. USDA For. Serv. Gen. Tech. Rep. NC-30, 23 p. North Cent. For. Exp. Stn., St. Paul, Minn.

Harper, W. T.
 1926. A bluebird's nest. Bird-Lore 28:187-190.

600. Harris, H. K.
1958. Slash disposal by dozer, northern Rocky Mountains. USDA For. Serv. Fire Control Notes 19(4): 144-154.

601. Harris, R. N.
1979. Aggression, superterritories, and reproductive success in tree swallows. Can. J. Zool. 57(10):2072-2078.

[In English with French summary.]

602. Harris, R. N.

1979. Influence of weather on aggression in tree swallows. Can. Field-Nat. 93(4):437-438.

603. Harris, S. W., C. L. Buechele, and C. F. Yocum. 1954. The status of Barrow's golden-eye in eastern Washington. Murrelet 35(3):33–38.

604. Harrison, H. H.

1945. The bird's debt to the tree. Am. For. 51:114-117.

605. Harrison, H. H.

1975. A field guide to birds nests. 257 p. Houghton Mifflin Co., Boston.

606. Hart. P.

1979. How much wood would a woodcutter cut if a woodcutter could cut wood? Am. For. 85(6):16, 45.

607. Hartesveldt, R. J., H. T. Harvey, H. S. Shellhammer, and R. E. Stecker.

1975. The giant sequoia of the Sierra Nevada. U.S. Dep. Interior, Natl. Park Serv. Publ. NPS 120, 180 p. Washington, D.C.

608. Hartshorne, J. M.

1962. Behavior of the eastern bluebird at the nest. Living Bird 1:131-149.

609. Hartzler, J. E.

1970. Winter dominance relationship in black-capped chickadees. Wilson Bull. 82:427–434.

610. Hausman, L. A.

1928. Woodpeckers, nuthatches, and creepers of New Jersey. N.J. Agric. Exp. Stn., New Brunswick, Bull. 470:1-48.

611. Haverschmidt, F.

1952. Nesting behavior of the southern house wren in Surinam. Condor 54:292–295.

612. Haverschmidt, F.

1974. Great kiskadee nesting in an old woodpecker hole. Auk 91(3):639.

613. Hawley, R. C., and D. M. Smith.

1954. The practice of silviculture. 525 p. John Wiley & Sons, Inc., New York.

614. Hay, J. C.

1972. Woodpecker predation on the red oak borer in black, scarlet, and northern red oak. Ann. Entomol. Soc. Am. 65(6):1421–1423.

615. Hayes, A., and P. James.

1963. Elf owl rediscovered in lower Rio Grande delta of Texas. Wilson Bull. 75:179-182.

616. Head, A.

1903. Nesting habits of two flycatchers at Lake Tahoe. Bird-Lore 5:153-155.

617. Headstrom, R.

1951. Bird's nests of the West: a field guide. 177 p. Ivers Washburn, Inc., New York.

618. Heath, H.

1920. The nesting habits of the Alaska wren. Condor 22:49-55.

619. Hegner, R. W.

1899. Photographing a bluebird. Bird-Lore 1:43-44.

620. Hein, D. A

1966. Float counts vs. flight counts as indices to abundance of nesting wood ducks. J. Wildl. Manage. 30(1):13-16.

621. Heintzelman, D. S.

1964. Spring and summer sparrow hawk food habits. Wilson Bull. 76:323-330.

622. Hellyer, C.

1978. Tree-nesting ducks. Pac. Search 12(8):39.

623. Hempel, K. M.

1919. Notes on nesting bluebirds and house wrens. Bird-Lore 21:173–174.

624. Hemphill, F. A.

1941. Notes on white-breasted nuthatch. Oologist 58: 131–133.

625. Henderson, A. D.

1919. Nesting of the American hawk owl. Oologist 36:59–63.

626. Henderson, A. D.

1925. With the early breeders. Oologist 40:126-127.

627. Hensley, M. M.

1954. Ecological relationships of the breeding bird population of the desert biome in Arizona. Ecol. Monogr. 24:185–207.

628. Hensley, M. M., and J. B. Cope.

1951. Further data on removal and population of the breeding birds in a spruce-fir forest community. Auk 68:483–489.

629. Henze, O., and H. J. Gornandt.

1959. The food of hole-nesting songbirds in an area infested by *Tortrix viridana*. Forstwiss Centralbl. (7/8):212-231.

630. Henze, O., and J. J. Gornandt.

1966. The results of 30 years' colonization of birds of a spruce forest endangered by *Lamantria monacha*. Allg. Forstz. 21(9):160–162.

631. Hepp, G. R.

1977. The ecology of wood duck (*Aix sponsa*) broods in the piedmont region of South Carolina. M.S. thesis. Clemson Univ. 113 p.

632. Hepp, G. R., and J. D. Hair.

1979. Wood duck mobility and utilization of beaver pond habitats. Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies 31:216–225.

633. Hepting, G. H.

1935. Decay following fire in young Mississippi Delta hardwoods. U.S. Dep. Agric. Tech. Bull. 494:1-34.

634. Hepting, G. H.

1941. Prediction of cull following fire in Appalachian oaks. J. Agric. Res. 62:109120.

635. Hepting, G. H.

1971. Diseases of forest and shade trees of the United States. USDA For. Serv. Agric. Handb. 386, 658 p. Gov. Print. Off., Washington, D.C.

636. Hepting, G. H., and G. G. Hedgecock.

1937. Decay in merchantable oak, yellow poplar, and basswood in the Appalachian region. U.S. Dep. Agric. Tech. Bull. 570, 30 p.

637. Herberg, M.

1960. Three decades of bird tending for the purpose of checking damage from insects in forests through the foundation of colonies of hole breeding species. Arch. Forstw. 9(11):1015-1046.

638. Herberg, M.

1965. Bird protection for control for injurious insects and its results. Anz. Schaedlingkd. 38 pt. 9 p. [Summary in Rev. Appl. Entomol. 55:497, 1967.]

639. Herman, S. G., and J. B. Bulger.
1979. Effects of a forest application of DDT on non-target organisms. Wildl. Monogr. 69, 62 p. The Wildlife Society, Washington, D.C.

640. Herrick, F. H.

1911. Nests and nest-building in birds. J. Anim. Behav. 1:159–192, 244–277, 336–373.

641. Hersey, F. S.

1933. Notes on tree swallows and bluebirds. Auk 50: 109–110.

642. Hespenheide, H. A.
1971. Flycatcher habitat selection in the eastern deciduous forest. Auk 88(1):61-74.

643. Hester, F. E., and J. Dermid.
1973. The world of the wood duck. 149 p. J. B. Lippincott Co., New York.

644. Heusmann, H. W., and R. Bellville.
1978. Effect of nest removal on starling populations.
Wilson Bull. 90(2):290–291.

645. Higby, W.
1979. Woodpeckers of Wyoming. Wyo. Wildl. 43(4):

646. Higgins, A. W.
1953. The Carolina wrens of Middleboro. Bull. Mass.
Audubon Soc. 37:339–340.

647. Higgins, H.
1941. Nesting notes on the cactus wren in southwestern
Utah. Oologist 58:117.

648. Hilden, O.
1965. Habitat selection in birds: a review. Ann. Zool.
Fenn. 2:53-75.

649. Hinde, R. A.
1952. The behavior of the great tit (*Parus major*) and some other related species. 201 p. Leiden, E. J. Brill.

650. Hinde, R. A.1956. The biological significance of the territories of birds. Ibis 98:340-369.

651. Hinds, T. E., F. G. Hawksworth, and R. W. Davidson. 1960. Decay of subalpine fir in Colorado. USDA For. Serv., Rocky Mt. For. and Range Exp. Stn., Pap. 51, 13 p. Fort Collins, Colo.

652. Hinds, T. E.
1977. Heart rots of Englemann spruce and subalpine fir in the central Rocky Mountains. USDA For. Serv., For. Insect and Disease Leafl. 150, 8 p. Washington, D.C.

653. Hinton, W. B.
1887. The purple martin in the South. Ornithol. and
Ool. 12:77–78.

654. Hoekstra, T. W., D. L. Schweitzer, C. T. Cushwa,
S. H. Anderson, and R. B. Barnes.
1979. Preliminary evaluation of a national wildlife and fish data base. *In* Trans. 44th North Am. Wildl. and Nat. Resour. Conf. p. 380–391. Wild. Manage. Inst., Washington, D.C.

655. Hoffman, LaV.
1943. An experience with house wrens. Jack-Pine
Warbler 21:65–66.

656. Hoffman, R. S., and R. L. Hand.
1962. Additional notes on Montana birds. Murrelet
43(2):29–35.

657. Hofstead, R.
1950. Bewick's wren nesting at Fort Snelling. Flicker
22:108.

658. Hogstad, O.
1970. On the ecology of the three-toed woodpecker
(Picoides *Picoides tridactylus L.*) outside the breeding season. Nytt Magasin for Zoologi. 18:221–227. Oslo, Norway.

659. Hogstad, O.
1977. Seasonal changes in intersepual niche differentiation of the three-toed woodpecker. Ornis. Scand. 8(2): 101-112.

660. Holroyd, G. L. 1975. Nest site availability as a factor limiting population size of swallows. Can. Field-Nat. 89(1):60-64.

661. Holtz, F. L. 1907. The house wren. Bird-Lore 9:198–200.

N.C.

662. Hooper, R. G.
1978. Cove forests: bird communities and management options. *In* Management of Southern Forests for Nongame Birds, Proc. Workshop [Atlanta, Ga., Jan. 24–26, 1978]. p. 90–97. USDA For. Serv. Gen. Tech. Rep. SE-14. Southeast. For. Exp. Stn., Asheville,

663. Hooper, R. G., H. S. Crawford, and R. F. Harlow. 1973. Bird density and diversity as related to vegetation in forest recreational areas. J. For. 71(12):766-769.

664. Hooven, E. F.
1969. The influence of forest succession on population of small animals in western Oregon. *In* Wildlife and Reforestation in the Pacific Northwest, Proc. Symp. [Corvallis, Oreg., Sep. 12–13, 1968]. p. 30–34. Oreg. State Univ., Corvallis.

665. Hopkins, M. L., and T. E. Lynn, Jr.
1971. Some characteristics of the red-cockaded woodpecker cavity trees and management implications in
South Carolina. *In* The Ecology and Management of
the Red-cockaded Woodpecker, Proc. Symp.
[Okefenokee Natl. Wildl. Refuge, Folkston, Ga., May
26–27, 1971]. p. 140–169. U.S. Dep. Interior, Bur.
Sport Fish. Wildl. [Published in cooperation with Tall
Timbers Res. Stn., Tallahassee, Fla.]

666. Horn, C. L., Jr.
1969. Unusual bluebird nesting site. Loon 41(3):91-92.

667. Horvath, O.
1963. Contributions to nesting ecology of forest birds.
M.S. thesis. Univ. B.C., Vancouver. 181 p.

668. Houck, W. J., and J. H. Oliver. 1954. Unusual nesting behavior of the brown-headed nuthatch. Auk 71:330-331.

669. Howe, G. E.
1973. The forest genetics program for the Northern
Region. 58 p. USDA For. Serv., North. Reg.,
Missoula, Mont.

670. Howell, T. R.
1952. Natural history and differentiation in the yellow-bellied sapsucker. Condor 54(5):237–282.

671. Howell, T. R.
1953. Racial and sexual differences in migration of *Sphyrapicus varius*. Auk 70:118–126.

672. Howes, R. G.

1926. A turkey vulture's nest in the State of New York. Bird-Lore 18(3):175–180.

673. Hoxie, W. J.

1886. Breeding habits of the black vulture. Auk 3(2): 245–247.

674. Hoyt, J. S. Y.

1941. Through the year with pileated woodpecker. Audubon 43(6):525–528.

675. Hoyt, J. S. Y.

1944. Preliminary notes of the development of nesting pileated woodpeckers. Auk 61:376–384.

676. Hoyt, J. S. Y.

1948. Further studies of the pileated woodpecker, *Hylatomus pileatus* (L.). Ph.D. diss. Cornell Univ., Ithaca, N.Y. 75 p.

677. Hoyt, J. S. Y.

1948. Observations on nesting associates. Auk 65: 188–196.

678. Hovt, J. S. Y.

1950. Feeding technique of the pileated woodpecker. Bull. Mass. Audubon Soc. 34:99–103.

679. Hoyt, J. S. Y.

1950. Nine years' experience in keeping the pileated woodpecker in captivity. Aviculture 20:41–46.

680. Hoyt, J. S. Y., and S. F. Hoyt.

1951. Age records of pileated woodpeckers. Bird-Banding 22:125.

681. Hoyt. S. F.

1952. An additional age record of a pileated woodpecker. Bird-Banding 23:29.

682. Hoyt. S. F.

1953. Forehead color of the pileated woodpecker. Auk 70:209–210.

683. Hoyt, S. F.

1957. The ecology of the pileated woodpecker. Ecology 38(2):246–256.

684. Hubbard, J. P.

1965. The summer birds of the forests of the Mongollon Mountains, New Mexico. Condor 67:404–415.

685. Hubbard, J. P.

1971. The summer birds of the Gila Valley, New Mexico. Del. Mus. Nat. Hist. Occas. Pap. 2:5–11,28–30.

686. Hubbard, M. E.

1907. Bluebird tenants. Bird-Lore 9:11-15.

687. Hubbard, M. E.

1909. A second season of bluebird tenants. Bird-Lore 11:63–70.

688. Hubert, E. E.

1955. Decay—a problem in the future management of grand fir. J. For. 53:409–411.

689. Hudler, G. W., N. Oshima, and F. G. Hawksworth. 1980. Bird dissemination of dwarf mistletoe on ponderosa pine in Colorado. Am. Midl. Nat. 102(2):273–280.

690. Huey, L. M.

1932. Note on the food of an Arizona spotted owl. Condor 34:100–101.

691. Hungerford, K. E.

1969. Influence of forest management on wildlife. *In* Wildlife and Reforestation in the Pacific Northwest, Proc. Symp. [Corvallis, Oreg., Sept. 12–13, 1968]. p. 30–34. Oreg. State Univ., Corvallis.

692. Hunt, D. B.

1979. Yellow-bellied sapsucker: new to Britain and Ireland. Brit. Birds 72(9):410–414.

693. Hutchison, F. T.

1951. The effects of woodpeckers on the Engelmann spruce beetle, *Dendroctonus engelmanni* Hopkins. M.S. thesis. Colo. A&M Coll., Fort Collins. 73 p.

694. Ilenko, A. K., and G. Y. Zargrodnyaya.

1961. The importance of artificial nesting places for the overnight resting of certain birds which nest in hollow trees in winter. Zool. Zhur. 40(11):1736–1738.

695. Imhof, T. A.

1976. Alabama birds. 2d ed. 445 p. Univ. Ala. Press.

696. Inouye, D. W.

1976. Nonrandom orientation of entrance holes to woodpecker nests in aspen trees. Condor 78(1):101–102.

697. Inozemtsev, A. A., and E. N. Cherikovskaya.

1970. Significance of the big spotted woodpecker in self-renewal of the pine and fir tree. Vestn. Leningrad Univ. Ser. Biol. 25(3):36–40.

698. Jackman, S. M.

1974. Some characteristics of cavity nesters: can we ever leave enough snags? 14 p. 1974 Annu. Meet., Oreg. Chap. Wildl. Soc.

699. Jackman. S. M.

1974. Woodpeckers of the Pacific Northwest: their characteristics and their role in the forests. M.S. thesis. Oreg. State Univ., Corvallis. 147 p.

700. Jackman, S. M.

1974. Cavity nesting birds: can we ever leave enough snags? Oreg. Agric. Exp. Stn. Tech. Pap. 3873, 10 p.

701. Jackman, S. M., and J. M. Scott.

1975. Literature review of twenty-three selected forest birds of the Pacific Northwest. USDA For. Serv., Reg. 6, Portland, Oreg. 382 p.

702. Jackson, J. A.

1970. A quantitative study of the foraging ecology of downy woodpeckers. Ecology 51:318–323.

703. Jackson, J. A.

1970. Predation of a black rat snake on yellow-shafted flicker nestlings. Wilson Bull. 82:329–330.

704. Jackson, J. A.

1970. Character variation in the hairy woodpecker, *Dendrocopus villosus*. Ph.D. diss. Univ. Kans., Lawrence. 205 p.

705. Jackson, J. A.

1971. The adaptive significance of reversed sexual dimorphism in tail length of woodpeckers: an alternative hypothesis. Bird-Banding 42(1):18–20.

706. Jackson, J. A.

1971. The evolution, taxonomy, distribution, past populations, and current status of the red-cockaded woodpecker. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. p. 4–29. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]

707. Jackson, J. A.

1974. Gray rat snakes versus red-cockaded woodpeckers: predator-prey adaptations. Auk 91(2):342–347.

708. Jackson, J. A.

1975. Some aspects of the population ecology of downy woodpeckers in relation to a feeding station. Iowa Bird Life 40:27–34.

709. Jackson, J. A.

1976. How to determine the status of a woodpecker nest. Living-Bird 15:205–219.

710. Jackson, J. A.

1976. A comparison of some aspects of the breeding ecology of red-headed and red-bellied woodpeckers in Kansas. Condor 78(1):67–76.

711. Jackson, J. A.

1977. Red-cockaded woodpeckers and pine red heart disease. Auk 94(1):160–163.

712. Jackson, J. A.

1979. Age characteristics of red-cockaded woodpeckers. Bird-Banding 50(1):23–29.

713. Jackson, J. A.

1979. Highways and wildlife – some challenges and opportunities for management. *In* Mitigation Symposium: A National Workshop on Mitigating Losses of Fish and Wildlife Habitats [Fort Collins, Colo., July 16–20, 1979]. p. 566–571. USDA For. Serv. Gen. Tech. Rep. RM–65. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

714. Jackson, J. A.

1977. Competition for cavities and red-cockaded wood-pecker management. *In* Endangered birds: management techniques for preserving threatened species. p. 102–112. Univ. Wis. Press, Madison.

715. Jackson, J. A.

1978. Pine bark redness as an indicator of red-cockaded woodpecker activity. Wildl. Soc. Bull. 6(3):171–172.

716. Jackson, J. A., D. C. Cooley, and M. B. Hays. 1979. A new trap for capturing cavity roosting birds. Inland Bird-banding 51(2):42–44.

717. Jackson, J. A., and E. E. Hoover.

1975. A potentially harmful effect of suet on woodpeckers. Bird-Banding 46(2):131–134.

718. Jackson, J. A., M. R. Lennartz, and R. G. Hooper. 1979. Tree age and cavity initiation by red-cockaded woodpeckers. J. For. 77(2):102–103.

719. Jackson, J. A., P. Ramey, and B. J. Schardien.1977. The red-cockaded woodpecker in north Mississippi.Miss. Kite 7(1):14–17.

720. Jackson, J. A., P. Ramey, B. J. Schardien, and B. J. Turner.

1977. The red-cockaded woodpecker in Hale and Bibb Counties, Alabama. Ala. Birdlife 25(1,2):9–11.

721. Jackson, J. P.

1979. Life among the limbs. Am. For. 85(3):38–42, 59–60.

722. Jackson, T.

1903. The turkey vulture and its young. Bird-Lore 5(6):184–187.

723. Jacobs, J. W.

1938. On the reasoning instinct of the tufted titmouse (*Baeolophus bi-color*). Oologist 55:6-7.

724. Jacot, E. C.

1931. Notes on the spotted and flammulated screech owls in Arizona. Condor 33(1):8-11.

725. Jahn, L. R., ed.

1966. Wood duck management and research: a symposium. 212 p. Wildl. Manage. Inst., Washington, D.C.

726. James, F. C.

1971. Ordinations of habitat relationships among breeding birds. Wilson Bull. 83(3):215–236.

727. James, R. D.

1978. Nesting of the house finch Carpodacus mexicanus

728. Jamison, H. K.

1887. My experience with the breeding of the white-breasted nuthatch. Ornithol. and Ool. 12:189–190.

729. Jenkins, J. M.

1979. Foraging behavior of male and female Nuttall woodpeckers. Auk 96(2):418-420.

730. Jewett, S. G.

1912. Some birds of the Sawtooth Mountains, Idaho. Condor 14(5):191-194.

731. Jewett, S. G., W. P. Taylor, W. T. Shaw, and J. W. Aldrich.

1953. Birds of Washington State. 767 p. Univ. Wash. Press, Seattle.

732. Johannsson, H.

1972. Clutch size and breeding success in some holenesting passerines in central Sweden. Ornis. Fenn. 49:1-6.

733. Johnsgard, P. A.

1975. Waterfowl in North America. 575 p. Ind. Univ. Press,

734. Johnsgard, P. A.

1978. Ducks, geese, and swans of the world. 404 p. Univ. Nebr. Press, Lincoln.

735. Johnson, A. R., and J. C. Barlow.

1971. Notes on the nesting of the black-bellied tree duck near Phoenix, Arizona. Southwest. Nat. 15(3):394–395.

736. Johnson, D. W., and R. L. James.

1978. Tree hazards: recognition and reduction in recreation sites. USDA For. Serv., For. Insect and Disease Manage., State and Priv. For., Rocky Mt. Reg., Tech. Rep. R 2-1, Lakewood, Colo.

737. Johnson, L. L.

1976. The common goldeneye duck and the role of nesting boxes in its management in north-central Minnesota. J. Minn. Acad. Sci. 34:110–113.

738. Johnson, N. K.

1978. Patterns of avian geography and specialization in the Intermountain region. Intermountain Biogeography: A Symposium. Great Basin Nat. Memoirs 1978(2):137–159.

739. Johnson, P. C.

1972. Bark beetle risk in mature ponderosa pine forest in western Montana. USDA For. Serv. Res. Pap. INT-119, 32 p. Intermt. For. and Range Exp. Stn., Ogden, Utah.

740. Johnson, P. C., and R. E. Denton.

1975. Outbreaks of the western spruce budworm in the American northern Rocky Mountain area from 1922 through 1971. USDA For. Serv. Gen. Tech. Rep. INT-20, 144 p. Intermt. For. and Range Exp. Stn., Ogden, Utah.

741. Johnson, R. A.

1947. Role of male yellow-bellied sapsucker in the care of the young. Auk 64:621–623.

742. Johnson, R. R.

1970. Tree removal along southwestern rivers and effects on associated organisms. 1970 Am. Phil. Soc. Yearb. p. 32l–322.

743. Johnson, R. R.

1979. The lower Colorado River: a western system. *In*Strategies for Protection and Management of
Floodplain Wetlands and Other Riparian Ecosystems,
Proc. Symp. [Callaway Gardens, Ga., Dec. 11–13,
1978]. p. 41–55. USDA For. Serv. Gen. Tech. Rep.
WO–12. Washington, D.C.

744. Johnson, R. R., and D. A. Jones, tech. coord.
1977. Importance, Preservation, and Management of Riparian Habitats, Symp. [Tucson, Ariz., July 9, 1977]. USDA For. Serv. Gen. Tech. Rep. RM-43, 217 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

745. Johnson, R. R., and J. F. McCormick, tech. coord. 11978. Strategies for Protection and Management of Floodplain Wetlands and Other Riparian Ecosystems, Proc. Symp. [Callaway Gardens, Ga., Dec. 11–13, 1978]. USDA For. Serv. Gen. Tech. Rep. WO–12, 410 p. Washington, D.C.

746. Johnson, W. T., and H. H. Lyon.
1976. Insects that feed on trees and shrubs: an illustrated guide. 464 p. Comstock Publ. Assoc., Cornell Univ. Press, Ithaca, N.Y.

747. Johnston, D. W.

1949. Populations and distribution of summer birds in Latah County, Idaho. Condor 51(3):140–149.

748. Johnston, D. W., and E. P. Odum.1956. Breeding bird populations in relation to plant succession on the Piedmont of Georgia. Ecology 37(1):50–62.

749. Johnston, H. C.

1934. The eastern Carolina wren nests again at Superior in 1934. Nebr. Bird Rev. 2:62.

750. Johnston, R. F.

1967. Seasonal variations in the food of the purple martin *Progne subis* in Kansas. Ibis 109(1):8–13.

751. Johnston, R. F., and J. W. Hardy. 1962. Behavior of the purple martin. Wilson Bull. 74:243–262.

752. Jollie, M.

1951. A positive breeding record of the starling in Idaho. Murrelet 32(1):13.

753. Jollie, M.

1953. The birds observed in Idaho by the Lewis and Clark expedition, 1804–1806. Murrelet 34(1):1–5.

754. Kale, H. W., II.

1968. The relationship of purple martins to mosquito control. Auk 85(4):654-661.

755. Kalmbach, E. R.

1928. The European starling in the United States. U.S. Dep. Agric. Farmers' Bull. 1571, 27 p. Washington, D.C.

756. Kalmbach, E. R.

1940. Economic status of the English sparrow in the United States. U.S. Dep. Agric. Tech. Bull. 711, 66 p. Washington, D.C.

757. Karalus, K. E., and W. Eckert.

1974. The owls of North America. 278 p. Doubleday & Co., Inc., New York.

758. Karlsson, J., and S. G. Nilsson.

1977. The influence of nest-box area on clutch size in some hole-nesting passerines. Ibis 119:207–211.

759. Keen, F. P.

1929. How soon do yellow pine snags fall? J. For. 27:735–737.

760. Keen, F. P.

1940. Longevity of ponderosa pine. J. For. 38:597–598.

761. Keen, F. P.

1955. The rate of natural falling of beetle-killed ponderosa pine snags. J. For. 53:720–723.

762. Kelleher, K. W.

1963. A study of the hole-nesting avifauna of southwestern British Columbia. M.S. thesis. Dep. Zool., Univ. B.C., Vancouver.

763. Kells, W.

1891. Nesting of the winter wren. Ornithol. and Ool. 16:139–140.

764. Kells, W.

1892. Nest of the winter wren. Ornithol. and Ool. 17:154–155.

765. Kelly, W. F., S. Loe, R. Hubbell, and L. Shikany. 1975. Snag management number 1. 13 p. USDA For. Serv., Reg. 5, San Francisco, Calif.

766. Kelsall, J. P., E. S. Telfes, and T. D. Wright. 1977. The effects of fire in the ecology of the boreal locust with particular reference to the Canadian north: a review and selected bibliography. Can. Wildl. Serv. Occas. Pap. 32, 58 p.

767. Kelsev, P

1973. Firewood and the fuel shortage. The Conservationist 28(5):4–6.

768. Kelso, L.

1939. The violet-green swallow at the nest. Oologist 56:90–92.

769. Kempkes, J. A.

1946. Arctic three-toed woodpecker nesting in Washington. Murrelet 27(2):27.

770. Kempton, R. M.

1927. Notes on the home life of the turkey vulture. Wilson Bull. 39(3):142–145.

771. Kendall, J. B.

1941. Observations on nesting habits of the bluebird. Passenger Pigeon 3:63–65.

772. Kendeigh, S. C., and S. P. Baldwin.

1937. Factors affecting yearly abundance of passerine birds. Ecol. Monogr. 7:92–123.

773. Kendeigh, S. C.

1941. Territorial and mating behavior of the house wren. Ill. Biol. Monogr. 18(3):1–20.

774. Kendeigh, S. C.

1944. Measurement of bird populations. Ecol. Monogr. 14:67–106.

775. Kendeigh, S. C.

1947. Bird population studies in the coniferous forest biome during a spruce budworm outbreak. Dep. Lands and For., Ont., Can., Biol. Bull. 1:31–34.

776. Kendeigh, S. C.

1961. Energy of birds conserved by roosting in cavities. Wilson Bull. 73(2):140–147.

777. Kennard, F. H., and F. B. McKechnie.

1905. The breeding of the brown creeper in eastern Massachusetts. Auk 22:183–193.

778. Kennard, J. H.

1975. Longevity records of North American birds. Bird-Banding 46(1):55–73.

779. Kenyon, K. W.

1947. Cause of death of a flammulated owl. Condor 49:88.

780. Keran, D. C.

1978. Site selection for wood duck nest boxes. Loon 50(4):191–194.

781. Kermott, H., R. Fields, and A. Trout.

1974. Mountain bluebirds nesting in North Dakota. Wilson Bull. 86(1):83-84.

782. Kessel, B.

1953. Distribution and migration of the European starling in North America. Condor 55:49-67.

783. Kessel, B.

1957. A study of the breeding biology of the European starling (*Sturnus vulgaris* L.) in North America. Am. Midl. Nat. 58(2):257–331.

784. Kessell, S. R.

1976. Wildland inventories and fire modeling by gradient analysis in Glacier National Park. Proc. Tall Timbers Fire Ecol. Conf. 14:115–162.

785. Kilgore, B. M.

1968. Breeding bird populations in managed and unmanaged stands of *Sequoia gigantea*. Ph.D. diss. Univ. Calif., Berkeley. 196 p.

786. Kilgore, B. M.

1971. Response of breeding bird populations to habitat changes in in giant sequoia forest. Am. Midl. Nat. 85(1):131–152.

787. Kilham, L.

1953. Possible commensalism between myrtle warbler and yellow-bellied sapsucker. Wilson Bull. 65:41.

788. Kilham, L.

1953. Warblers, hummingbirds, and sapsuckers feeding on sap of yellow birch. Wilson Bull. 65:198.

789. Kilham, L.

1956. Winter feeding on sap by sapsucker. Auk 73: 451–452.

790. Kilham, L.

1958. Pair formation, mutual tapping and nest hole selection of red-bellied woodpeckers. Auk 75(3): 318-329.

791. Kilham, L.

1958. Red squirrels feeding at sapsucker holes. J. Mammal. 39:596–597.

792. Kilham, L.

1958. Sealed-in winter stores of red-headed woodpeckers. Wilson Bull. 70(2):107–111.

793. Kilham, L.

1958. Territorial behavior of wintering red-headed woodpeckers. Wilson Bull. 70(4):347–358.

794. Kilham, L.

1958. Repeated attacks by a sharp-shinned hawk on a pileated woodpecker. Condor 60;141.

795. Kilham, L.

1959. Behavior and methods of communications of pileated woodpeckers. Condor 61(6):377–387.

796. Kilham, L.

1959. Early reproductive behavior of flickers. Wilson Bull. 71(4):323–336.

797. Kilham, L.

1959. Pilot black snake and nesting pileated woodpeckers. Wilson Bull. 71:191.

798. Kilham, L.

1959. Mutual tapping of the red-headed woodpecker. Auk 76:235–236.

799. Kilham, L.

1960. Courtship and territorial behavior of hairy woodpeckers. Auk 77:259–270.

800. Kilham, L.

1961. Downy woodpeckers scaling bark on diseased elms. Wilson Bull. 73:89.

801. Kilham, L.

1961. Reproductive behavior of red-bellied woodpeckers. Wilson Bull. 73:237–254.

802. Kilham, L.

1962. Nest sanitation of yellow-bellied sapsucker. Wilson Bull. 74:96–97.

803. Kilham, L.

1962. Reproductive behavior of downy woodpeckers. Condor 64:126–133.

804. Kilham, L.

1962. Breeding behavior of yellow-bellied sapsucker. Auk 79:31-43.

805. Kilham, L.

1963. Food storing of red-bellied woodpeckers. Wilson Bull. 75(3):227–234.

806. Kilham, L.

1964. The relations of breeding yellow-bellied sapsuckers to wounded birches and other trees. Auk 81(4): 520–527.

807. Kilham, L.

1965. Differences in feeding behavior of male and female hairy woodpeckers. Wilson Bull. 77(2):134–145.

808. Kilham, L.

1966. Reproductive behavior of hairy woodpeckers. I. Pair formation and courtship. Wilson Bull. 78(3):251–265.

809. Kilham, L.

1966. Nesting activities of black-backed woodpeckers. Condor 38(3):308–310.

810. Kilham, L.

1968. Reproductive behavior of the white-breasted nuthatch. I. Display at the nest hole. Auk 85(3):477–492.

811. Kilham. L.

1968. Reproductive behavior of hairy woodpeckers. II. Nesting and habitat. Wilson Bull. 80(3):286–305.

812. Kilham, L.

1969. Reproductive behavior of hairy woodpeckers. III. Agonistic behavior in relation to courtship and territory. Wilson Bull. 81:169–183.

813. Kilham, L.

1970. Feeding behavior of downy woodpeckers. I. Preference for paper birches and sexual differences. Auk 87:544–546

814. Kilham, L.

1971. Reproductive behavior of yellow-bellied sapsuckers. I. Preference for nesting in *Fomes*-infected aspens and nest hole interrelations with flying squirrels, raccoons, and other animals. Wilson Bull. 83(2):159-171.

815. Kilham, L.

1971. Roosting habits of white-breasted nuthatches. Condor 73(1):113–114.

816. Kilham, L.

1972. Reproductive behavior of white-breasted nuthatches. II. Courtship. Auk 89:115–129.

817. Kilham, L.

1972. Death of red-breasted nuthatch from pitch around nest hole. Auk 89:451–452.

818. Kilham, L.

1972. Shortness of tail in red crowned woodpeckers and their habit of entering roost-holes backwards. Condor 74(2):202–204.

819. Kilham, L.

1973. Unusual attack of intruding male on a nesting pair of pileated woodpeckers. Condor 75(3):349–350.

820. Kilham, L.

1973. Reproductive behavior of the redbreasted nuthatch. I. Courtship. Auk 90(3):597-609.

821. Kilham, L.

1973. Colonial-type nesting in yellow-shafted flickers as related to staggering nesting times. Bird-Banding 44(4):317-318.

822. Kilham, L.

1974. Loud vocalizations by pileated woodpeckers on approach to roost or nest holes. Auk 91(3):634–636.

823. Kilham, L

1974. Copulatory behavior of downy woodpeckers. Wilson Bull. 86(1):23–24.

824. Kilham, L.

1974. Play in hairy, downy, and other woodpeckers. Wilson Bull. 86(1):35–42.

825. Kilham, L.

1974. Covering of stores by white-breasted and redbreasted nuthatches. Condor 76(1):108–109.

826. Kilham, L.

1974. Early breeding season behavior of downy woodpeckers. Wilson Bull. 86(4):407–418.

827. Kilham, L.

1975. Association of red-breasted nuthatches with chickadees in hemlock cone year. Auk 92:160–162.

828. Kilham, L

1975. Dirt-bathing by a pileated woodpecker. Bird-Banding 46(3):251–252.

829. Kilham, L.

1976. Winter foraging associated behavior of pileated woodpeckers in Georgia and Florida. Auk 93:15–24.

830. Kilham, L.

1977. Nest site differences between red-headed and redbellied woodpeckers in South Carolina. Wilson Bull. 89(1):164–165.

831. Kilham, L.

1977. Nesting behavior of yellow-bellied sapsuckers. Wilson Bull. 89(2):310–324.

832. Kilham, L.

1977. Early breeding season behavior of red-headed woodpeckers. Auk 94(2):231–239.

833. Kilham, L.

1977. Altruism in nesting. Yellow-bellied sapsuckers. Auk 94(3):613–614.

834. Kilham, L.

1979. Chestnut-colored woodpeckers feeding as a pair on ants. Wilson Bull. 91(1):149–150.

835. Kilham, L.

1979. Courtship and the pair-bond of pileated woodpeckers. Auk 96(3):587-594.

836. Kilham, L.

1979. Three-week vs. 4-week nestling periods in *Picoides* and other woodpeckers. Wilson Bull. 91(2):335–338.

837. Kilham, L., and P. O'Brien.

1979. Early breeding behavior of lineated woodpeckers. Condor 81(3):299–303.

838. Kimbal, J., T. A. Pulson, and W. F. Savage.

1970. An observation of environmental rodent control. USDA For. Serv. Range and Improv. Notes 15(2):8–9.

839. Kimmey, J. W.

1950. Cull factors for forest-tree species in northwestern California. USDA For. Serv., For. Survey Release 7, 30 p. Pac. Southwest For. and Range Exp. Stn., Berkeley, Calif.

840. Kimmey, J. W.

1955. Rate of deterioration of fire-killed timber in California. U.S. Dep. Agric. Circ. 962, 22 p. Washington, D.C.

841. Kimmey, J. W.

1965. Rust-red stringy rot. USDA For. Serv., For. Pest Leafl. 93, 8 p. Washington, D.C.

842. Kimmey, J. W., and R. L. Furniss.

1943. Deterioration of fire-killed Douglas-fir. U.S. Dep. Agric. Tech. Bull. 851, 61 p. Washington, D.C.

843. King, J. R.

1952. Nesting of the western flycatcher in Whitman County, Washington. Murrelet 33(2):29–30.

844. Kingsbury, E. W.

1932. A study of the hairy woodpecker, *Dryobates villosus*. M.A. thesis. Cornell Univ., Ithaca, N.Y.

845. Kirk, M. R.

1935. A very modern Carolina wren. 1935 Ind. Audubon Soc. Yearb. p. 63-65.

846. Kisiel, D. S.

1972. Foraging behavior of *Dendrocopus villosus* and *D. pubescens* in eastern New York State. Condor 74(4): 393–398.

847. Kittleson, B. C.

1979. Breeding in the wild by a hand-raised screech owl. Fla. Field Nat. 7(1):1–2.

848. Klebenow, D. A., and R. C. Beal.
1978. Fire impacts on birds and mammals on Great

Basin rangelands. *In* The 1977 Rangeland Management and Fire Symposium, Proc. [Casper, Wyo., Nov. 1–3, 1977]. Rocky Mt. Fire Counc. and Intermt. Fire Res. Counc. [Prepared in cooperation with Univ. Mont.

For. and Conserv. Exp. Stn., Missoula.]

849. Klomp, H.

1972. Regulation of the size of bird populations by means of territorial behavior. Neth. J. Zool. 22(4):456–488.

850. Kluyver, H. N.

1961. Food consumption in relation to habitat in breeding chickadees. Auk 78:532–550.

851. Knapp, E.

1943. Life of the purple martin. Blue Bird 10:34.

852. Knapp, J. B.

1911. Strength of fire killed Douglas-fir, hemlock, and red-cedar. Pac. Lumber Trade J., April, 23 p.

853. Kneeskern, R., and R. Kneeskern.

1979. Red-headed woodpecker behavior. Loon 51(2):106.

854. Kneitz, G.

1961. Distribution of woodpecker's nesting holes and their orientation. Waldhygiene 4(3/4):80–120.

855. Kneitz, G.

1963. An initial hole tree of woodpeckers (*Dendrocopus major* L.). Waldhygiene 5(1):22–25.

856. Knight, F. R.

1958. The effects of woodpeckers on populations of the Engelmann spruce beetle. J. Econ. Entomol. 51(5):603-607.

857. Knorr, O. A.

1957. Communal roosting of the pygmy nuthatch. Condor 59:398.

858. Knowlton, G. G., and F. C. Harmston.

1946. Insect food of the mountain bluebird. J. Econ. Entomol. 39(3):384.

859. Knox, M.

1945. Crested flycatcher nestings. Migrant 16:8-9.

860. Koch, R. F., A. E. Courchesne, and C. T. Collins. 1970. Sexual differences in foraging behavior of white-headed woodpeckers. Bull. South. Calif. Acad. Sci. 69:60–64.

861. Koenig, D.

1979. Comparative abundance of hairy and downy woodpeckers in Iowa. Iowa Bird Life 49(3):90.

862. Koenig, W. D.

1978. Ecological and evolutionary aspects of cooperative breeding in acorn woodpeckers of central coastal California. Ph.D. diss. Univ. Calif., Berkeley. 204 p.

863. Koenig, W. D., and F. A. Pitelka.

1979. Relatedness and inbreeding avoidance: counterploys in the communally nesting acorn woodpecker. Science 206(4422):1103–1105.

864. Koenig, W. D., and P. L. Williams.

1979. Notes on the status of acorn woodpeckers in central Mexico. Condor 81(3):317–318.

865. Kolbe, E. L.

1939. Burning ponderosa pine snags by the base-fire method. J. For. 37:894–896.

866. Komarek, E. V., Sr.

1964. The natural history of lightning. Proc. Tall Timbers Fire Ecol. Conf. 3:139–183.

867. Komarek, E. V., Sr.

1966. The meteorological basis for fire ecology. Proc. Tall Timbers Fire Ecol. Conf. 5:85–125.

868. Komarek, E. V., Sr.

1968. Lightning and lightning fires as ecological forces. Proc. Tall Timbers Fire Ecol. Conf. 8:169–197.

869. Komarek, E. V., Sr.

1969. Fire and animal behavior. Proc. Tall Timbers Fire Ecol. Conf. 9:161-207.

870. Komarek, E. V., Sr.

1974. Introduction to lightning ecology. Proc. Tall Timbers Fire Ecol. Conf. 13:421–427.

871. Komarek, R.

1963. Fire and the changing wildlife habitat. Proc. Tall Timbers Fire Ecol. Conf. 2:35-43.

872. Koplin, J. R.

1967. Predatory and energetic relations of woodpeckers to the Engelmann spruce beetle. Ph.D. diss. Colo. State Univ., Fort Collins. 187 p.

873. Koplin, J. R.

1969. The numerical response of woodpeckers to insect prey in a subalpine forest in Colorado. Condor 71(4):436–438.

874. Koplin, J. R.

71972. Measuring predator impact of woodpeckers on spruce beetles. J. Wildl. Manage. 36(2):308–320.

875. Koplin, J. R., and P. H. Baldwin.

1970. Woodpecker predation on an endemic population of Englemann spruce beetles. Am. Midl. Nat. 83(2): 510–515.

876. Korenberg, E. I.

1964. The main features of the effect of concentrated (clear) felling on the birds of the southern Taiga forest of European Russia. Zool. Z. Moskva 43(5):735-743.

877. Korolkova, G. E.

1960. Main features of the activity of woodpeckers in the oak forest of Tellerman massif and the Starbelsk steppes. Trud. Inst. Les. 48:7-58.

878. Korschgen, L. J., and H. S. Stuart.

1972. Twenty years of avian predator-small mammal relationships in Missouri. J. Wildl. Manage. 36(2):269–282.

879. Kourtz, P.

1967. Lightning behavior and lightning fires in Canadian forests. Can. Dep. For. and Rural Dev., Ottawa, Publ. 1179, 33 p.

880. Koval, N. F.

1971. Adaptation of some hollow-nesting bird species for the protection of progeny from ectoparasites. Vestn. Zool. 5(6):79–81.

881. Kreisel, H.

1974. On the ringing of tree trunks by *Sphyrapicus* varius varius, in Cuba. Beitr. Vogelkd. 20(1/2):53-66.

882. Kricher, J. C.

1973. Summer bird species diversity in relation to secondary succession in the New Jersey Piedmont. Am. Midl. Nat. 89:121–137.

883. Krug, H. H.

1941. Bluebird banding at Chesley, Ontario. Bird-Banding 12(1):23–26.

884. Kuerzi, R. G.

1941. Life history studies of the tree swallow. Proc. Linn. Soc. N.Y. 52–53:1–52.

885. Lachmund, H. G.

1923. Bole injury in forest fires. J. For. 21:723-731.

886. Lack, D.

1933. Habitat selection in birds, with special reference to the effects of forestation on the Breckland avifauna. J. Anim. Ecol. 2:239–262.

887. Lack, D.

1950. Population ecology in birds: a review. *In* Proc. 10th Intl. Ornithol. Congr., Uppsala, Sweden. p. 407–448.

888. Lack, D.

1956. Swifts in a tower. 239 p. Methuen and Co., Ltd., London.

889. Lack, D.

1968. Ecological adaptation for breeding in birds. 409 p. Methuen and Co., Ltd., London.

890. Lancaster, K., and C. Hunt.

1978. Improve your woodlot by cutting firewood. 9 p. USDA For. Serv., Northeast. Area, State and Priv. For., Broomall, Pa.

891. Landin, M. C.

1977. Observations of a black vulture nest. Miss. Kite 7(2):40.

892. Landin, M. C.

1978. Screech owl predation on a common flicker nest. Wilson Bull. 90(4):652.

893. Landin, M. C.

1979. The importance of wetlands in the north central and northeast United States to nongame birds. *In*Management of North Central and Northeastern
Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23–25, 1979]. p. 179–188. USDA
For. Serv. Gen. Tech. Rep. NC–51. North Cent. For. Exp. Stn., St. Paul, Minn.

894. Lane, J.

1968. A hybrid eastern bluebird X mountain bluebird. Auk 85:684.

895. Lannoy, S. L., and F. D. Sakaguchi.

1979. First record of breeding bufflehead in central Idaho. Murrelet 60(2):72–73.

896. Larrison, E. J.

1967. Guide to Idaho birds. J. Idaho Acad. Sci. 5:1-220.

897. Larsen, R. H., and D. F. Mott.

1970. House finch removal from a western Oregon blueberry planting. Murrelet 51(3):15–16.

898. Larson, J. H.

1979. A winter territory of the white-breasted nuthatch in central Minnesota. Loon 51(2):79–81.

899. Laskey, A. R.

1940. The 1939 nesting season of bluebirds at Nashville, Tennessee. Wilson Bull. 52(3):183-190.

900. Laskey, A. R.

1943. The nesting of bluebirds banded as nestlings. Bird-Banding 14:39–43.

901. Laskey, A. R

1946. Some Bewick wren nesting data. Migrant 17;39-43.

902. Laskey, A. R.

1947. Evidence of polyandry at a bluebird nest. Auk 64:314–315.

903. Laskey, A. R.

1948. Some nesting data on the Carolina wren at Nashville, Tennessee. Bird-Banding 19:101–121.

904. Laskey, A. R.

1950. A courting Carolina wren building over nestlings. Bird-Banding 21:1–6.

905. Laskey, A. R.

1957. Some tufted titmouse life history. Bird-Banding 28(3):135–145.

906. Laskey, A. R.

1966. The manner of feeding fledgling woodpeckers. Wilson Bull. 78:64–67.

907. Laughlin, E. E.

1906. The Carolina wren. Am. Ornithol. 6:128-130.

908. Lawrence, A. G.

1932. New Manitoba nesting records. Free Press Evening Bull., Winnipeg. 27 May.

909. Lawrence, L. deK.

1955. Is the sapsucker destructive? Nature 48:487–488,500.

910. Lawrence, L. deK.

1958. On regional movements and body weight of black-capped chickadees in winter. Auk 75:415–443.

911. Lawrence, L. deK.

1967. A comparative life-history study of four species of woodpeckers. Ornithol. Monogr. 5, 156 p. Am. Ornithol. Union.

912. Lawrence, L. deK.

1970. The apartment. Audubon 72(2):4-7.

913. Lay, D. W., E. W. McDaniel, and D. N. Russell.
1971. Status of investigations of range and habitat requirements. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. p. 74–77. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with

Tall Timbers Res. Stn., Tallahassee, Fla.]

914. Lay, D. W., and D. N. Russell.

1970. Notes on the red-cockaded woodpecker in Texas. Auk 87:781–786.

915. Lay, D., and D. Swepston.

1975. The red-cockaded woodpecker. Tex. Parks Wildl. Dep., Austin. 8 p.

916. Legg, K.

1966. Look under the bark. Audubon 68(3):193-194.

917. Leland, H. J.

1899. Nesting of the western flycatcher in San Gabriel Canyon. Condor 1:82.

918. Lennartz, M. R., and A. J. Bjegstand.

1975. Information needs to manage forest and range habitats for non-game birds. *In* Symposium on the Management of Forest and Range Habitats for Nongame Birds, Proc. [Tucson, Ariz., May, 1975]. p. 328-333. USDA For. Serv. Gen. Tech. Rep. WO-1.

919. Lennartz, M. R., and R. F. Harlow.

1979. The role of parent and helper red-cockaded woodpeckers at the nest. Wilson Bull. 91(2):331–335.

920. Levy, S. H.

1950. Summer birds in southern Idaho. Murrelet 31(1):2–8.

921. Levy, S. H.

1962. Additional summer southern Idaho bird notes. Murrelet 43(1):10–14.

922. Ligon, J. D.

1967. The biology of the elf owl, *Micrathene whitneyi*. Ph.D. diss. Univ. Mich., Ann Arbor. 158 p.

923. Ligon, J. D.

1968. Observations on Strickland's woodpecker, *Dendrocopus stricklandi*. Condor 70:83–84.

924. Ligon, J. D.

1968. Sexual differences in foraging behavior in two species of *Dendrocopus* woodpeckers. Auk 85: 203-215.

925. Ligon, J. D.

1970. Behavior and breeding biology of the red-cockaded woodpecker. Auk 87:255–278.

926. Ligon, J. D.

1971. Some factors influencing numbers of the redcockaded woodpecker. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26-27, 1971]. p. 30-43. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]

927. Ligon, J. D.

1973. Foraging behavior of the white-headed woodpecker in Idaho. Auk 90(4):862–869.

928. Ligon, J. D.

1961. New Mexico birds. 360 p. Univ. N. Mex. Press, Albuquerque.

929. Linkola, P.

1967. The northern three-toed woodpecker (*Picoides tridactylus*) nesting in the vicinity of *Accipiter gentilis* nests. Ornis. Fenn. 44:21-24.

930. Lockmiller, R. L.

1979. Use of beaver ponds by southeastern woodpeckers in winter. J. Wildl. Manage. 43(1):263-266.

931. Lohrl, H.

1956. The starling as a competitor for nest holes. DieVogelwelt 77(2):47–50.

932. Long, W. H.

1913. Effect of forest fires on standing hardwood timber. USDA For. Serv. Circ. 216, 6 p. Washington, D.C.

933. Loomis, R. M.

1973. Estimating fire-caused mortality and injury in oakhistory forests. USDA For. Serv. Res. Pap. NC-94, 6 p. North Cent. For. Exp. Stn., St. Paul, Minn.

934. Lopez, B.

1975. Least in strength...mighty chickadee...strongest in mind. Nat. Wildl. 13(3):33.

935. Lound, M., and R. Lound.

1960. A boreal chickadee nest in forest country. Passenger Pigeon 22(1):31–32.

936. Loveless, J. P.

1975. Breeding bird populations of forest edges in central Missouri. M.S. thesis. Univ. Mo., Columbia. 56 p.

937. Low, J. B.

[n.d.] Spring and summer birds in the vicinity of Gray's Lake, Idaho. Utah State Coll., Logan.

938. Low, S. H.

1933. Further notes on the nesting of tree swallows. Bird-Banding 4:76–87.

939. Low, S. H.

1933. Notes on the nesting of bluebirds. Bird-Banding 4:109-111.

940. Low, S. H.

1934. Nest distribution and survival ratio of tree swallows. Bird-Banding 5(1):24–30.

941. Low, S. H.

1957. Banding with mist nets. Bird-Banding 28:115-128.

942. Lowden, M. S.

1941. A "pusher" for snags. USDA For. Serv. Fire Control Notes 5(4):201-202.

943. Lowden, M. S.

1947. Slash disposal in selective cut ponderosa pine stands. USDA For. Serv. Fire Control Notes 8(4): 35–40.

944. Lowe, P. O.

1975. Potential wildlife benefits on fire in ponderosa pine forests. M.S. thesis. Univ. Ariz., Tucson. 131 p.

945. Lowry, G. H., Jr.

1960. Louisiana birds. La. State Univ. Press, Baton Rouge.

946. Lowther, P. E.

1979. Growth and dispersal of nestling house sparrows: sexual differences. Inland Bird Banding 51(2):23–29.

947. Lowther, P. E.

1979. Overlap of house sparrow broods in the same nest. Bird-Banding 50(2):160–162.

948. Lowther, P. E.

1979. The nesting biology of house sparrows in Kansas. Kans. Ornithol. Soc. Bull. 30(3):23-28.

949. Lowther, P. E.

1979. Interfarm variation in breeding biology of a Kansas population of house sparrows (*Passer domesticus*). Ph.D. diss. Univ. Kans., Lawrence. 103 p.

950. Lucid, V. J.

1974. Bird utilization of habitat in residential areas. Ph.D. diss. Va. Polytech. Inst. and State Univ., Blacksburg. 164 p.

951. Luckett, L. M.

1977. The ecology of the wood duck (*Aix sponsa*) in the piedmont region of South Carolina. M.S. thesis. Clemson Univ., S.C. 99 p.

952. Lunk, W. A.

1962. The rough-winged swallow. A study based on its breeding biology in Michigan. Publ. 4, 155 p. Nuttall Ornithol. Club, Cambridge, Mass.

953. Lyman, C. K.

1945. Principals of fuel reduction for the northern Rocky Mountain region. USDA For. Serv., North. Rocky Mt. For. and Range Exp. Stn. Prog. Rep. l, 98 p. Missoula, Mont.

954. Lyon, L. J.

1977. Attrition of lodgepole pine snags on the Sleeping Child burn, Montana. USDA For. Serv. Res. Note INT-219, 4 p. Intermt. For. and Range Exp. Stn., Ogden, Utah.

955. Lyon, L. J., J. S. Crawford, E. Czuhai, R. L. Fredriksen,
R. F. Harlow, L. J. Metz, and H. A. Pearson.
1978. Effects of fire on fauna. USDA For. Serv. Gen.
Tech. Rep. WO-6, 41 p. Washington, D.C.

956. MacArthur, R. H.

1964. Environmental factors affecting bird species diversity. Am. Nat. 98(903):387-397.

957. MacArthur, R. H., and J. W. MacArthur. 1961. On bird species diversity. Ecology 42(3):594-598.

958. MacArthur, R. H., J. W. MacArthur, and J. Preer. 1962. On bird species diversity—prediction of bird census from habitat measurements. Am. Nat. 96(838):167-174.

959. MacClintock, L., R. F. Whitcomb, and B. L. Whitcomb. 1977. Island biogeography and "habitat islands" of eastern forest. II. Evidence of the value of corridors and minimization of isolation in preservation of biotic diversity. Am. Birds 31(1):5-16.

960. Mack, E. T.

1885. White-bellied nuthatch. Young Ool. 1:142-143.

 MacKay, V. M., and W. M. Hughes.
 1963. Crested mynah in British Columbia. Can. Field-Nat. 77(3):154-162.

962. MacKenzie, J. M. D.

1946. Some factors influencing woodland birds. Q. J. For. 40(2):82-88.

964. MacLellan, C. R. 1948. Birds and silvicultural systems. J. For. 42:89-92.

965. MacLellan, C. R. 1949. Tits in conifers. Scot. For. 3(3):14-19.

966. MacLellan, C. R.

1952. The encouragement of birds in commercial plantations by nest boxes and other means. Scot. For. 6:10–17

967. MacLellan, C. R. 1958. Role of woodp

1958. Role of woodpeckers in control of the codling moth in Nova Scotia. Can. Entomol. 90(1):18-22.

968. MacLellan, C. R.

1959. Woodpeckers as predators of the codling moth in Nova Scotia. Can. Entomol. 91:673-680.

969. MacLellan, C. R.

1970. Woodpecker ecology in the apple orchard environment. Proc. Tall Timbers Conf. on Ecol. Animal Control by Habitat Manage. 2:273–284.

970. MacRoberts, B. R., and M. H. MacRoberts. 1972. A most social bird. Nat. Hist. 81(10):44-51.

971. MacRoberts, M. H.

1970. Notes on the food habits and food defense of the acorn woodpecker. Condor 72:196–204.

972. MacRoberts, M. H., and B. R. MacRoberts.1976. Social organization and behavior of the acorn woodpecker in central coastal California. Ornithol. Monogr. 21, 115 p.

973. Maloy, O. C.

1967. A review of *Echinodontium tinctorium* Ell. & Ev., the Indian paint fungus. Wash. Agric. Exp. Stn. Bull. 686.

974. Mannan, R. W.

1977. Uses of snags by birds, Douglas-fir region, western Oregon. M.S. thesis. Oreg. State Univ., Corvallis. 114 p.

975. Manuwal, D. A.

1968. Breeding bird populations in the coniferous forests of western Montana. M.S. thesis. Univ. Mont., Missoula. 176 p.

976. Marshall, D. B.

1971. Small bird populations and forest management practices in the Pacific Northwest. *In* Proc. Fish and Wildl. Habitat Manage. Train. Conf. p. 43-50.

977. Marshall, J. T., Jr.

1939. Territorial behavior of the flammulated screech owl. Condor 41:71–78.

978. Marshall, J. T., Jr.

1942. Food and habitat of the spotted owl. Condor 44:66–67.

979. Marshall, J. T., Jr.

1957. Birds of pine-oak woodland in southern Arizona and adjacent Mexico. Cooper Ornithol. Soc., Pac. Coast Avifauna 32, 125 p.

980. Marshall, J. T., Jr.

1962. Land use and native birds in Arizona. Ariz. Acad. Sci. J. 2(2):75–77.

981. Marshall, J. T., Jr.

1963. Fire and birds in the mountains of southern Arizona. Proc. Tall Timbers Fire Ecol. Conf. 2:135–142.

982. Marshall, W. H.

1945. Winter bird observations in the Boise National Forest, Idaho. Condor 47(4):170–172.

983. Marti, C. D.

1974. Feeding ecology of four sympatric owls. Condor 76(1):45–61.

984. Marti, C. D., and J. G. Hogue. 1979. Selection of prey size in screech owls. Auk 96(2):319-327.

985. Martin, A. C., H. S. Zim, and A. L. Nelson. 1951. American wildlife and plants: a guide to wildlife food habits. 500 p. Dover Publ., Dover, N.J.

986. Martin, E. M.

1959. Wood ducks: twilight travelers. Iowa Conserv. 18(9):163–164.

987. Martin, E. P.

1945. Ups and downs of the wrens. Bull. Mass. Audubon Soc. 29:213-214.

988. Martin, N. D.

1960. An analysis of bird populations in relation to forest succession in Algonquin Provincial Park, Ontario. Ecology 41(1):126–140.

989. Marzolf, G. R.

1978. The potential effects of clearing and snagging on stream ecosystems. U.S. Dep. Interior, Fish and Wildl. Serv., Biol. Sci. Prog. FWS/OBS-78/14, 31 p. Washington, D.C.

990. Maser, C., and E. D. Brodie, Jr.

1966. A study of owl pellet contents from Linn, Benton, and Polk Counties, Oregon. Murrelet 47(1):9–14.

991. Maser, C., and J. S. Gashwiler.

1977. Interrelationships of wildlife and western juniper. *In* Western Juniper Ecology and Management Workshop, Proc. p. 37–82. USDA For. Serv. Gen. Tech. Rep. PNW-74. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

- 992. Maser, C., J. W. Thomas, I. D. Luman, and R. Anderson. 1979. Wildlife habitats in managed rangelands—the Great Basin of southeastern Oregon. USDA For. Serv. Gen. Tech. Rep. PNW-86, 39 p. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.
- 993. Maser, C., J. M. Trappe, and D. C. Ure.
 1978. Implications of small mammal mycophagy to the management of western coniferous forests. *In* Trans.
 43d North Am. Wildl. and Nat. Resour. Conf. p. 78–88. Wildl. Manage. Inst., Washington, D.C.
- 994. Mason, C. F., R. E. Stebbings, and G. P. Winn. 1972. Noctules (*Nyctalus noctula*) and starlings (*Sturnus vulgaris*) competing for roosting holes. J. Zool. Lond. 1972:166–467.
- 995. Mason, E. A. 1944. Parasitism by *Protocalliphora* and management of cavity-nesting birds. J. Wildl. Manage. 19:232–247.
- 996. Mason, E. A.
 1968. Nesting data and notes on a tree swallow colony.
 Bird-Banding 39:187–189.
- 997. Massey, C. L., and N. D. Wygant.1954. Biology and control of the Englemann spruce beetle in Colorado. USDA For. Serv. Circ. 944, 35 p. Washington, D.C.
- 998. Massey, C. L., and N. D. Wygant.1973. Woodpeckers: most important predators of the spruce beetle. Colo. Field Ornithol. 14:4–8.
- 999. Mattsson, J. P.
 1979. Saw-whet owl nest record, Minnesota. Loon 51(2): 98–99.
- 1000. Maule, W. M.1954. Hazard reduction by snag burning. USDA For.Serv. Fire Contr. Notes 15(3):27–29.
- 1001. May, J. B.
 1935. The hawks of North America. 140 p. Natl. Assoc.
 Audubon Soc., New York City.
- 1002. Mayer, L., S. Lustick, and T. C. Grubb, Jr. 1979. Energetic control of behavior: foraging in Carolina chickadees. Comp. Biochem. Physiol. A Comp. Physiol. 63(4)577–579.
- 1003. Mayfield, H.1964. Yearly fluctuations in a population of purple martins. Auk 81:274–280.
- 1004. Mayr, E., and L. L. Short.1970. Species taxa of North American birds. Publ. Nuttall Ornithol. Club No. 9, 127 p. Cambridge, Mass.
- 1005. McArdle, R. E.
 1931. Overtopping of Douglas-fir snags by reproduction. USDA For. Serv. Res. Note PNW-8, 7 p. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.
- 1006. McArdle, R. E., and C. N. Mathews.
 1934. Fuel inflammability studies; what materials are first ignited? USDA For. Serv. Res. Note PNW-15,
 14 p. Pac. Northwest For. and Range Exp. Stn.,
 Portland, Oreg.
- 1007. McAtee, W. L.1911. Woodpeckers in relation to trees and wood products. U.S. Dep. Agric., Biol. Surv. Bull. 39, 99 p.Govt. Print. Off., Washington, D.C.

- 1008. McAtee, W. L.
 1915. Bird enemies of forest insects. Am. For.
 21:681-691.
- 1009. McAtee, W. L.1926. The relation of birds to woodlots in New York State. Roosevelt Wildl. Bull. 4(1):7-152.
- 1010. McCabe, R. A.1961. The selection of colored nest boxes by house wrens. Condor 63:322–329.
- 1011. McCabe, R. A.
 1965. Nest construction by house wrens. Condor
 67:229-234.
- 1012. McCamant, R. E., and E. G. Bolen.1977. Response of incubating black-bellied whistling ducks to loss of mates. Wilson Bull. 89(4):621.
- 1013. McCamant, R. E., and E. G. Bolen.
 1979. A 12-year study of nest box utilization by black-bellied whistling ducks. J. Wildl. Manage.
 43(4):936–943.
- 1014. McCambridge, W. F., and F. B. Knight.
 1972. Factors affecting spruce beetles during a small outbreak. Ecology 53(5):830–839.
- 1015. McCamey, B. F., Jr.1962. Survival and age structure in a sample population of the black-capped chickadee. Ph.D. diss. Univ. Conn., Storrs. 125 p.
- 1016. McClelland, B. R.1975. Effectiveness of brown creeper's concealment behavior. West. Birds 6(1):24.
- 1017. McClelland, B. R.1976. First verified nest of chestnut-backed chickadee in Montana. Murrelet 57(1):18.
- 1018. McClelland, B. R.1977. Wildfire influences on aesthetic values in Glacier National Park. West. Wildlands 4(1):45-52.
- 1019. McClelland, B. R.
 1977. Relationships between hole-nesting birds, forest snags, and decay in western larch-Douglas-fir forests of the northern Rocky Mountains. Ph.D. diss. Univ. Mont., Missoula.
- 1020. McClelland, B. R.
 1979. The pileated woodpecker in forests of the northern Rocky Mountains. *In* The Role of Insectivorous Birds in Forest Ecosystems. p. 283–299.
 Academic Press, Inc., New York.
- 1021. McClelland, B. R.1979. Cavity nesters: part of Montana's bird heritage.Mont. Outdoors 10(4):34-37.
- 1022. McClelland, B. R., and S. S. Frissell.1975. Identifying forest snags useful for hole-nesting birds. J. For. 73(7):414–417.
- 1023. McClelland, B. R., S. S. Frissell, W. C. Fischer, and C. H. Halvorson.
 1979. Habitat management for hole-nesting birds in forests of western larch and Douglas-fir. J. For. 77(8):480-483.
- 1024. McCluskey, D. C., J. W. Thomas, and E. C. Meslow. 1977. Effects of aerial application of DDT on reprodution in house wrens and mountain and western bluebirds. USDA For. Serv. Res. Pap. PNW-228, 22 p. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

1025. McDonald, P. M., and R. V. Whiteley.1972. Logging a roadside stand to protect scenic values.J. For. 70(2):80-83.

1026. McEllin, S. M.

1978. Adaptive accommodations of nuthatches in ponderosa pine forests. Ph.D. diss. Colo. State Univ., Fort Collins. 252 p.

1027. McGee, C. E.

1970. Clearcutting and aesthetics in the southern Appalachians. J. For. 68(9):540–544.

1028. McGilvrey, F. B., compiler.

1968. A guide to wood duck production habitat requirements. U.S. Dep. Interior, Bur. Sport Fish. Wildl., Resour. Publ. 60, 32 p.

1029. McGowan, R. W.

1967. A breeding census of the pileated woodpecker: a preliminary report. Migrant 38(3):57–59.

1030. McGrew, A. D.

1918. Observations on a family of winter wrens. Oologist 35:162–164.

1031. McGurie, N. M.

1932. A red-bellied woodpecker robs a sapsucker. Wilson Bull. 44:39.

1032. McKinley, D.

1979. The Carolina parakeet in Kentucky. Ind. Audubon Q. 57(3):187–195.

1033. McKinley, D.

1979. A review of the Carolina parakeet in Tennessee. Migrant 50(1):1-6.

1034. McLaren, M. A.

1975. Breeding biology of the boreal chickadee. Wilson Bull. 87(3):344–354.

1035. McLaren, W. D.

1962. A preliminary study of nest site competition in a group of hole nesting birds. M.S. thesis. Univ. B.C., Vancouver.

1036. Meanley, B.

1943. Red-cockaded woodpecker breeding in Maryland. Auk 60:105.

1037. Meanley, B., and A. G. Meanley.

1958. Nesting habitat of the black-bellied tree duck in Texas. Wilson Bull. 70(1):94-95.

1038. Mearns, E. A.

1890. Observations on the avifauna of portions of Arizona. Auk 7:45-55.

1039. Mendall, H. L.

1944. Food of hawks and owls in Maine. J. Wildl. Manage. 8:198-208.

1040. Mengel, R. M., and J. A. Jackson.

1977. Geographic variation of the red-cockaded woodpecker. Condor 79(3):349–355.

1041. Menzel, H.

1978. Amsel (*Turdus merula*) ahmt das "lachen" des gruenspechtes (*Picus viridis*) nach. [Blackbird (*Turdus merula*) imitates the "laughing" of the woodpecker (*Picus viridis*).] Beitr. Vogelkd. 24(1/2):107. [In German.]

1042. Merriam, C. H.

1892. The dwarf screech owl (*Megascops flammeolus Idahoensis* Merriam). Auk 9(2):169–171.

1043. Merrill, J. C.

1897. Notes on the birds of Fort Sherman, Idaho. Auk 14(4):347–357.

1044. Merrill, J. C.

1898. Notes on the birds of Fort Sherman, Idaho. Auk 15:14–22.

1045. Merritt, M.

1916. Wren notes. Wilson Bull. 28:92-94.

1046. Meslow, E. C.

1978. The relationship of birds to habitat structure-plant communities and successional stage. *In* The Workshop on Nongame Bird Habitat Management in the Coniferous Forests of the Western United States, Proc. [Portland, Oreg., Feb. 7–9, 1977]. p. 12–18. USDA For. Serv. Gen. Tech. Rep. PNW–64. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

1047. Meslow, E. C., and H. M. Wigth.

1975. Avifauna and succession in Douglas-fir forests of the Pacific Northwest. *In* Symposium on Management of Forest and Range Habitats for Nongame Birds, Proc. [Tucson, Ariz., May 6–9, 1975]. p. 266–271. USDA For. Serv. Gen. Tech. Rep. WO-1. Washington, D. C.

1048. Meyer, J. R.

1913. Some observations of a pair of brown creepers (*Certhia familiaris americana*). Auk 30:587–589.

1049. Meyer, I. R., and C. M. Weise.

1979. Juvenile dispersal and development of site-fidelity in the black-capped chickadee. Auk 96(1):40-55.

1050. Meyers, C. A., and M. J. Morris.

1975. Watershed management practices and habitat values in coniferous forests. *In* Symposium on Management of Forest and Range Habitats for Nongame Birds, Proc. [Tucson, Ariz., May 6-9, 1975]. p. 288-296. USDA For. Serv. Gen. Tech. Rep. WO-1. Washington, D.C.

1051. Meyers, J. M., and A. S. Johnson.

1978. Bird communities associated with succession and management of loblolly-shortleaf pine forests. *In* Management of Southern Forests for Nongame Birds, Workshop Proc. [Atlanta, Ga., Jan. 24-26, 1978]. p. 50-65. USDA For. Serv. Gen. Tech. Rep. SE-14. Southeast. For. Exp. Stn., Asheville, N.C.

1052. Michael, C. W.

1928. The pileated woodpecker feeds on berries. Condor 30(2):157.

1053. Michael, C. W.

1929. Prodigious drillings of a Williamson's sapsucker. Condor 32:119–121.

1054. Michael, C. W.

1934. Nesting of the red-breasted nuthatch. Condor 36:113.

1055. Michael, C. W.

1936. Nesting of the Williamson's sapsucker. Condor 37(4):209–210.

1056. Michael, C. W.

1936. Some C.C.C. activities in Yosemite Valley. Condor 38(1):37.

1057. Michael, E. D., and P. I. Thornburgh.

1971. Immediate effects of hardwood removal and prescribed burning on bird populations. Southwest. Nat. 15(3):359–370.

1058. Middleton, R. J.

1949. Tufted titmouse nesting seven years. Bird-Banding 20(3):151–152.

1059. Middletown, R. J.

1936. A pair of northern crested flycatchers (*Myiarchus crinitus boreus*) mated for three consecutive years. Bird-Banding 7:171–172.

1060. Mikhel'son, K. A.

1963. Nature of the attraction of different species of small birds that nest in holes of trees to artificial nesting places. *In* Summaries of reports from 5th Baltic Ornithol. Conf. [Tartu]. p. 128–130.

1061. Miller, A. H.

1955. A hybrid woodpecker and its significance in speciation in the genus *Dendrocopos*. Evolution 9:317–321.

1062. Miller, A. H., and C. E. Bock.

1972. Natural history of the Nuttall woodpecker at Hastings Reservation. Condor 74(3):284–294.

1063. Miller, D., and E. Miller.

1974–75. Snags, partly dead, and deformed trees. USDA For. Serv., Reg. 6, Umatilla Natl. For., Pendleton, Oreg. 47 p.

1064. Miller, E., A. D. Partridge, and E. C. Bull.1979. The relationship of primary cavity nesters and decay. Trans. Northeast Sec. Wildl. Soc. 36:60–68.

1065. Miller, E. V.

1941. Behavior of the Bewick wren. Condor 43:81-99.

1066. Miller, J. M., and F. P. Keen.

1960. Biology and control of the western pine beetle. U.S. Dep. Agric. Misc. Publ. 800, 381 p. Washington, D.C.

1067. Miller, R. F.

1928. Nesting of the white-breasted nuthatch in Center County, Pa. Oologist 45:134–138.

1068. Miller, R.

1978. Guidelines for wildlife management in western coniferous forests. *In* The Workshop on Nongame Bird Habitat Management in the Coniferous Forests of the Western United States, Proc. [Portland, Oreg, Feb. 7–9, 1977]. p. 70–73. USDA For. Serv. Gen. Tech. Rep. PNW–64. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

1069. Miller, S., C. W. Erickson, R. D. Taber, and C. H. Nellis.

1972. Small mammal and bird populations on Thompson Site, Cedar River: parameters for modeling. *In* Research on coniferous forest ecosystems: first year progress in the Coniferous Forest Biome, US/IBP.
p. 199–207. USDA For. Serv., Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

1070. Miller, W.

1968. Collective parental care by tree swallows. Blue Jay 26(2):80.

1071. Miller, W.

1970. Factors influencing the status of eastern and mountain bluebirds in southwestern Manitoba. Blue Jay 28(2):38–46.

1072. Mills, G.S.

1976. American kestral sex ratios and habitat separation. Auk 93:740–748.

1073. Minock, M. E.

1972. Some behavioral relationships between black-capped and mountain chickadees in an area of year-round sympatry. Ph.D. diss. Utah State Univ., Logan. 100 p.

1074. Mirachi, R. E., and T. A. Pierson. 1978. Wondrous Woodie. Va. Wildl. 39(1):12–13.

1075. Missouri Academy of Science.

1974. Timber-wildlife management symposium. Missouri Acad. Sci. Occas. Pap. 3.

1076. Mitchell, J. G.

1978. Ban the woodstove. Audubon 80(2):114.

1077. Mitchell, B.

1977. Wildlife impacts on telephone and electrical services in Waterloo, Ontario. J. Soil and Water Conserv. 32(3):133–135.

1078. Mitchell, C. J., R. O. Hayes, and T. B. Hughes, Jr. 1979. Effects of the chemosterilant ornitrol on house sparrow reproduction. Am. Midl. Nat. 101(2):443–446.

1079. Molina, M. F.

1971. Muestro de nidales para aves insectivoras en pinares de Soria. Bolletin de Servicios Plagas Forestales XIV(27), Madrid.

1080. Monath, T. P., G. E. Kemp, C. B. Cropp, and G. S. Bowen.

1978. Experimental infection of house sparrows (*Passer domesticus*) with rocio virus. Am. J. Trop. Med. Hyg. 27(6):1251–1256.

1081. Mondzelewski, B.

1928. Application of artificial holes for nesting of tawny owl (*Strix aloco*). Notatki Ornithol. 9(4):78–80.

1082. Monson, G.

1941. The effect of revegetation on small bird populations in Arizona. J. Wildl. Manage. 5:396–397.

1083. Monson, G.

1973. Unique birds and mammals of the Coronado National Forest. USDA For. Serv., on file, Supervisor's Office, Tucson, Ariz. 78 p. [typewritten].

1084. Montana Environment.

1973. Georgia Pacific forests home for rare woodpecker. Mont. Environ. 14(3):5.

1085. Moore, A. D.

1945. Winter night habits of birds. Wilson Bull. 57(4):253–260.

1086. Moore, G. E.

1946. The pileated woodpeckers. Missouri Conserv. 7(11):14.

1087. Moore, L.

1937. The Florida wrens. Fla. Nat. 10:35-38.

1088. Moore, R. T.

1939. A review of the house finches of the subgenus Burrica. Condor 41(5):177–205.

1089. Moore, W. H.

1905. The red-breasted nuthatch (*Sitta canadensis*). Ottawa Nat. 19:139–141.

1090. Moore, W. H.

1906. The red-breasted nuthatch. Oologist 23:153-154.

1091. Moore, W. H.

1908. Blue birds of the Maritime Provinces. Ottawa Nat. 22:174–179.

1092. Morely, A.

1940. Recolonization by bird species on burnt woodland. J. Anim. Ecol. 9(1):84–88.

1093. Morrell, C. H.

1898. Nesting habits of the red-breasted nuthatch. Oologist 15:55–56.

1094. Morris, M. J., V. H. Reid, R. E. Pillmore, and M. C. Hammer.

1977. Birds and mammals of Manitou Experimental Forest, Colorado. USDA For. Serv. Gen. Tech. Rep. RM-38, 179 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

1095. Morse, D. H.

1972. Habitat utilization of red-cockaded woodpecker during the winter. Auk 89:429–435.

1096. Morse, E. M.

1923. The history of a black-capped chickadee family. Bird-Lore 25:187–188.

1097. Morse, G. W.

1927. Notes on a red-cockaded woodpecker. Oologist 44:22–23.

1098. Morse, T. E., J. L. Jakabosky, and V. P. McCrow. 1969. Some aspects of the breeding biology of the hooded merganser. J. Wildl. Manage. 33(3):596–604.

1099. Morton, D. H., and E. Fine.1969. Chemical thinning reduces fire hazard. USDAFor. Serv. Fire Control Notes 30(3):5-7.

1100. Mosher, J. I., and S. Lane.

1972. A method of determining the sex of captured black-capped chickadees. Bird-Banding 43(2):139–140.

1101. Moskovits, D.

1978. Winter territorial and foraging behavior of redheaded woodpeckers in Florida. Wilson Bull. 90(4): 521–535.

1102. Mousley, H.

1934. A study of the home life of the northern crested flycatcher (*Myiarchus crinitus boreus*). Auk 51: 207–216.

1103. Mowbray, E. E., and J. W. Goertz.1972. Nesting season and reproductive rates of cavity nesting birds of north Louisiana. Southwest. Nat.

1104. Mueller, H. C.

17(2):145-151.

1974. Factors influencing prey selection in the American kestrel. Auk 91:705-721.

1105. Mueller, H. C.

1975. Hawks select odd prey. Science 188:953-954.

1106. Mueller, H. C., and D. D. Berger.
1964. A westward autumnal movement of a brown creeper.
Bird-Banding 35(3):203–204.

1107. Mueller, H. C.

1977. Prey selection in the American kestral: experiments with two species of prey. Am. Nat. 111(977): 25-29.

1108. Mumford, R. E., and R. L. Zust.1958. Notes on movements, territory, and habitat of wintering saw-whet owls. Wilson Bull. 70:188-191.

1109. Munger, T. T., and G. L. Drake. 1926. Snags. The Timberman 27:1-2.

1110. Munger, T. T., and A. G. Simson. 1929. Snag falling. The Timberman 30:1-2.

1111. Munro, J. A.

1935. Bird life at Horse Lake, British Columbia. Condor 37:185-193.

1112. Munther, G., J. Diebert, and M. Hillis.1978. Some wildlife and fisheries habitat management concepts. 66 p. USDA For. Serv., Lolo Natl. For., Missoula, Mont.

1113. Murphy, E. C.

1978. Seasonal variation in reproductive output of house sparrows: the determination of clutch size. Ecology 59(6):1189–1199.

1114. Musselman, T. E.

1935. Three years of eastern bluebird banding and study. Bird-Banding 6(4):117-125.

1115. Musselman, T. E.

1939. The effects of cold snaps upon the nesting of the eastern bluebird. Bird-Banding 10(1):33-35.

1116. Myers, H. W.

1911. Nesting habits of the western flycatcher. Condor 13:87–89.

1117. Myres, M. T.

1958. The European starling in British Columbia: 1947–1957. British Columbia Prov. Mus. Occas. Pap. 11, 60 p.

1118. Nagel, R. E.

1969. Predation on eggs in simulated nests and tree cavity abundance in wood duck nesting habitat. M.S. thesis. Iowa State Univ., Ames. 94 p.

1119. Nakajima, S., and K. Shimizu.

1965. Ecological observation of woodpeckers injuring telephone poles and some means of preventing damage. Dep. Commerce, Joint Publ. Res. Serv., Transl. 538, 18 p. [From Japanese.]

1120. Natural History.

1958. Identifying birds' nests. Nat. Hist. 67(9):516-525.

1121. Naylor, A. E.

1960. The wood duck in California with specific reference to the use of nest boxes. Calif. Fish and Game 46:241-269.

1122. Nazarova, I. V.

1965. Ecological and morphological features of some woodpeckers. Ornitologia 6:478–479.

1123. Neel, L.

1971. Some observations and comments on the redcockaded woodpecker in the Thomasville-Tallahassee Game Preserve region. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. p. 137–139. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]

1124. Nelson, F. A.

1932. A martin colony. Bull. Mass. Audubon Soc. 16(5):5–6.

1125. Nelson, R. M., I. H. Sims, and M. S. Abell.1933. Basal fire wounds on some southern Appalachian hardwoods. J. For. 31:829-837.

1126. Nelson, S. G.

1975. The interrelationships of habitat complexity, secondary succession, season and bird populations in southern California chaparral. M.A. thesis. Univ. Calif., Riverside. 68 p.

1127. Newell, J. G.

1979. Breeding of tree swallow in Cimarron County, Oklahoma. Bull. Okla. Ornithol. Soc. 12(3):24.

1128. Newhouse, V. F.

1960. Birds of selected irrigated river valleys of west central Idaho. Murrelet 41(1):1-6.

1129. Newton, I.

1977. Breeding strategies in birds of prey. Living Bird 16:51-82.

1130. Nice, M. M., and R. H. Thomas.
1948. A nesting of the Carolina wren. Wilson Bull.
60(3):139–158.

1131. Nice, M. M.

1957. Nesting success in altricial birds. Auk 74:305–321.

1132. Nicholls, T. H., and D. W. Warner.
1972. Barred owl habitat use as determined by radiotelemetry. J. Wildl. Manage. 36(2):213-224.

1133. Nickell, W. P.

1956. Bird and insect guest at sapsucker tree. Jack-Pine Warbler 34:117.

1134. Nickell, W. P.

1956. Nesting of the black-capped chickadee in the southern peninsula of Michigan. Jack-Pine Warbler 34:127-138.

1135. Nickell, W. P.

1965. Birds and insects feed at sapsucker trees. Bird-Banding 36:192–193.

1136. Niemi, G. J., and L. P. Jannmuller.

1979. Avian communities: approaches to describing their habitat associations. *In* Management of North Central and Northeastern Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23–25, 1979]. p. 154–178. USDA For. Serv. Gen. Tech. Rep. NC–51. North Cent. For. Exp. Stn., St. Paul, Minn.

1137. Nilsson, S. G.

1979. Effect of forest management on the breeding bird community in southern Sweden. Biol. Conserv. 16(2): 135–143.

1138. Noble, G. K.

1936. Courtship and sexual selection of the flicker (*Colaptes auratus lutenus*). Auk 53:269–282.

1139. Noon, B. R., and K. P. Able.

1978. A comparison of avian community structure in the northern and southern Appalachian mountains. *In* Management of Southern Forests for Nongame Birds, Workshop Proc. [Atlanta, Ga., Jan. 24–26, 1978]. p. 98–118. USDA For. Serv. Gen. Tech. Rep. SE–14. Southeast. For. Exp. Stn., Asheville, N.C.

1140. Noon, B. R., V. P. Bingman, and J. P. Noon.

1979. The effects of changes in habitat on northern hardwood forest bird communities. *In* Management of North Central and Northeastern Forests for Nongame birds, Workshop Proc. [Minneapolis, Minn., Jan. 23–25, 1979]. p. 33–48. USDA For. Serv. Gen. Tech. Rep. NC-51. North Cent. For. Exp. Stn., St. Paul, Minn.

1141. Nordin, V. J.

1958. Basal fire scars and the occurrence of decay in lodgepole pine. For. Chron. 34:257–265.

1142. Norris, R. A.

1958. Comparative biosystematics and life history of the nuthatches, *Sitta pygmaea* and *Sitta pusilla*. Univ. Calif. Publ. Zool. 56:119–300.

1143. Norris, R. A.

1958. Some effects of X-irradiation on the breeding biology of eastern bluebirds. Auk 75:444–455.

1144. Norton, A. H.

1917. Remarks on the nesting habits of swallows. Bird Lore 19(5):257–258.

1145. Norwood, J., and R. Norwood.

1956. Nesting observations of brown-headed nuthatches. Chat 20:73–74.

1146. Nunn, G. L., D. Klem, Jr., T. Kimmel, and T. Merriman.

1976. Surplus killing and caching by American kestrels. Anim. Behav. 24:759–763.

1147. Nyholm, E. S.

1968. Notes on the roosting behavior of the great spotted woodpecker (*Dendrocopos major*) and the three-toed woodpecker (*Picoides tridactylus*). Ornis Fenn. 45(1):7-9.

1148. Oberholser, H. C.

1911. A revision of the forms of the ladder-backed woodpecker (*Dryobates scalaris* (Wagler)). Proc. U.S. Natl. Mus. 41:139-159.

1149. Oberholser, H. C.

1974. The bird life of Texas, vol. 1. 530 p. Univ. Tex. Press, Austin.

1150. O'Conner, R. J.

1977. Growth strategies in nestling passerines. The Living Bird 16:209-238.

1151. Odum, E. P.

1941. Annual cycle of the black-capped chickadee-1. Auk 58(3):314-333.

1152. Odum, E. P.

1941. Annual cycle of the black-capped chickadee-2. Auk 58:518-535.

1153. Odum, E. P.

1942. Annual cycle of the black-capped chickadee-3. Auk 59(4):499-531.

1154. Odum, E. P.

1942. Long incubation by a Carolina chickadee. Auk 59:430–431.

1155. Odum, E. P.

1945. The concept of the biome as applied to the distribution of North American birds. Wilson Bull. 57:191-201.

1156. Odum, E. P., and D. W. Johnson.

1951. The house wren breeding in Georgia: an analysis of range extension. Auk 68:357-366.

1157. Olendorff, R. R., J. E. Crawford, R. L. Means,

W. A. Kennedy, and D. Almand.

1975. The Bureau of Land Management wildlife habitat management program, with special emphasis on nongame bird habitat. *In* Symposium on Management of Forest and Range Habitats for Nongame Birds, Proc. [Tucson, Ariz., May 6-9, 1975]. p. 305-313. USDA For. Serv. Gen. Tech. Rep. WO-1. Washington, D.C.

1158. Oliver, J. H., Jr.

1952. Unusual nesting behavior of the brown-headed nuthatch. Oriole 17:17.

1159. Oliver, W. W.

1968. Sapsucker damage to ponderosa pine. J. For. 66(11):842-844.

1160. Oliver, W. W.

1972. The feeding pattern of sapsuckers on ponderosa pine in northeastern California. Condor 72(2):241.

1161. Olson, A. C.

1943. Starling in northern Idaho. Condor 45(5):197.

1162. Olson, A. C.

1942. A preliminary annotated check-list of the birds of northern Idaho. M.S. thesis. Univ. Idaho, Moscow. 68 p.

1163. Olson, H.

1953. Beetle rout in the Rockies. Audubon 55(1): 30–33.

1164. Orians, G. H., and M. F. Willson.

1964. Interspecific territories in birds. Ecology 45:736–745.

1165. Oring, L.

1960. Birds of the University of Idaho campus. J. Idaho Acad. Sci. 1(2):93-112.

1166. Oring, L.

1962. Observations on the birds of southeastern Idaho. Murrelet 43(3):40–50.

1167. Orr, R. T.

1942. A study of the birds of the Big Basin region of California. Am. Midl. Nat. 27:273–337.

1168. Orr, R. T.

1951. Observations on the birds of northeastern Idaho. Proc. Calif. Acad. Sci., 4th series, 27:1-16.

1169. Ostry, M. E., and T. H. Nicholls.

1976. How to identify and control sapsucker injury on trees. 5 p. USDA For. Serv., North Cent. Exp. Stn., St. Paul, Minn.

1170. Otteni, L. C., E. G. Bolen, and C. Cottam.

1972. Predator-prey relationships and reproduction of the barn owl in southern Texas. Wilson Bull. 84:434–448.

1171. Otvos, I. S.

1965. Studies on avian predators of *Dendroctonus* brevicomis LeConte (Coleoptera: Scolytidae) with special reference to Picidae. Can. Entomol. 97:1184-1199.

1172. Packard, F. M.

1945. Birds of Rocky Mountain National Park. Auk 62(3):371-394.

1173. Paine, Lee A.

1973. Administrative goals and safety standards for hazard control on forested recreation sites. USDA For. Serv. Res. Pap. PSW-88, 13 p. Pac. Southwest For. and Range Exp. Stn., Berkeley, Calif.

1174. Palaus Solar, F. J.

1959. Woodpeckers and their usefulness in the forest. Montes, Madrid 16(91):13-17.

1175. Palmer, C. E.

1958. Woodpeckers in woodlands. For. Comm., Lond., Leafl. 42, 11 p.

1176. Palmer, R. S., ed.

1976. Handbook of North American birds, vol. 3. 560 p. Yale Univ. Press, New Haven, Conn.

1177. Parker, D. L.

1971. Measuring mountain pine beetle trends and impact in lodgepole pine. 4 p. USDA For. Serv., Intermt. Reg., Ogden, Utah.

1178. Parker, J. W.

1972. A mirror and pole device for examining high nests. Bird-Banding 43(3):216–218.

1179. Parr, D. E., M. D. Scott, and D. D. Kennedy. 1979. Autumn movements and habitat use by wood ducks in southern Illinois. J. Wildl. Manage. 43(1):102-108. 1180. Parratt, L. P.

1964. Birds of Glacier National Park. Glacier Nat. Hist. Assoc. and Natl. Park Serv. Spec. Bull. 9, 78 p.

1181. Partridge, A. D., and D. L. Miller.

1974. Major wood decays in the inland northwest. 120 p. Univ. Idaho, For. Wildl. and Range Exp. Stn., Idaho Res. Found., Moscow.

1182. Patterson, S.

1967. A study of bluebirds nesting in central Iowa – 1965. Iowa Bird Life 37(2):36–40.

1183. Patterson, S.

1968. Nesting box utilization by the eastern bluebird and the house wren. Iowa Bird Life 39(3):55-58.

1184. Patton, D. R.

1978. RUN WILD – a storage and retrieval system for wildlife habitat information. USDA For. Serv. Gen. Tech. Rep. RM–51, 8 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

1185. Patton, D. R.

1979. RUN WILD II: a storage and retrieval system for wildlife data. *In* Trans. 44th North Am. Wildl. and Nat. Resour. Conf. p. 425–430. The Wildl. Manage. Inst., Washington, D.C.

1186. Patton, D. R.

1979. How to use RUN WILD data files stored on microfiche. USDA For. Serv. Res. Note RM-377,2 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

1187. Patton, D. R., and P. F. Ffolliott.

1975. Selected bibliography of wildlife and habitats for the southwest. USDA For. Serv. Gen. Tech. Rep. RM-16, 39 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

1188. Patton, D. R., and J. R. Jones.

1977. Managing aspen for wildlife in the southwest. USDA For. Serv. Gen. Tech. Rep. RM-37, 7 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

1189. Paul, A.

1963. Some observations on tree swallows and finches in the Western Chilcotin District of British Columbia. Murrelet 44:10-11.

1190. Peabody, P. B.

1901. Saw-whet homes. Bird-Lore 3(2):55-58.

1191. Peakall, D. B.

1970. The eastern bluebird: its breeding season, clutch size, and nesting success. Living Bird 9:239–255.

1192. Pearson, T. G.

1905. A bluebird and his mate. Bird-Lore 7:210.

1193. Pearson, T. G.

1919. Turkey vulture. Bird-Lore 21(5):319-322.

1194. Pearson, T. G.

1921. Brown creeper. Bird-Lore 23:60-63.

1195. Pearson, T. G.

1933. Woodpeckers, friends of our forests. Natl. Geogr. 63(2):453–479.

1196. Pearson, T. G., ed.

1936. Birds of America. 289 p. Garden City Books, Garden City, N.Y.

1197. Pederson, R. J., A. W. Adams, and L. D. Bryant. 1975. Observations on birds of the Blue Mountains. Murrelet 56(1):7–10.

1198. Penry, B. H.

1978. The house sparrow – a successful opportunist? Bull. Zambian Ornithol. Soc. 10(1):25–27.

1199. Perala, D. A.

1977. Aspen in the north-central states. USDA For. Serv. Gen. Tech. Rep. NC-36, 30 p. North Cent. For. Exp. Stn., St. Paul, Minn.

1200. Perkins, C. J.

1971. Red-cockaded woodpeckers on International Paper Company lands. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. p. 135–136. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]

1201. Perkins, C. J.

1974. Silvicultural practice impacts on wildlife. *In*Timber-Wildlife Management Symposium. p. 43–48.
Missouri Acad. Sci. Occas. Pap. 3.

1202. Perrins, C. M.

1970. The timing of birds' breeding seasons. Ibis 112(2):242–255.

1203. Perry, H. R., Jr.

1979. Wood duck roost utilization of northeastern North Carolina swamps. Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies 31:307-311.

1204. Peterson, P., Jr.

1969. Summary of an eight year survey of bluebird nesting boxes in eastern Iowa. Iowa Bird Life 39(4):57-58.

1205. Peterson, R. T.

1936. The bluebird. Bird-Lore 38:129-132

1206. Peterson, R. T.

1939. A field guide to the birds. 180 p. Houghton Mifflin Co., Boston.

1207. Peterson, R. T.

1948. Birds over America. 342 p. Dodd, Mead, and Co., New York.

1208. Peterson, R. T.

1961. A field guide to western birds. 309 p. Houghton Mifflin Co., Boston.

1209. Peterson, S. W.

1977. Apparent distraction display of barred owl. Miss. Kite 7(2):32.

1210. Pettingill, O. S., Jr.

1967. A laboratory and field manual of ornithology. 381 p.Burgess Publ. Co., Minneapolis, Minn.

1211. Pettingill, O. S., Jr.

1976. Observed acts of predation on birds in northern lower Michigan. The Living Bird 15:33-41.

1212. Pfeifer, S., and W. Keil.

1961. The qualitative and quantitative composition of a population of hole and open nesting bird species in an experiment bird-protection area, Frankfurt-Am-Main, 1949–60. Ornithol. Mitteil. Stuttgart 13(1):7–11.

1213. Pfeifer, S., and W. Keil.

1963. Dichte und Dynamik von Brutpopulationene zweier deutscher. Waldgebiete 1949–1961. Proc. Int. Ornithol. Congr. 13:754–763.

1214. Pfister, R. D., B. L. Kovalchik, S. F. Arno, and R. C. Presby.

1974. Forest habitat types of Montana. USDA For. Serv. Gen. Tech. Rep. INT-34, 174 p. Intermt. For. and Range Exp. Stn., Ogden, Utah.

1215. Pfitzenmeyer, H. T., Jr.

1956. Life history and behavior patterns of the pileated woodpecker relative to utility lines. M.S. thesis. Pa. State Univ., University Park.

1216. Phillips, A., J. Marshall, and G. Monson. 1964. The birds of Arizona. 212 p. Univ. Ariz. Press, Tucson.

1217. Phillips, B. M.

1906. The inconstancy of mother wren. Am. Ornithol. 6:40-41.

1218. Pielou, W. P.

1957. A life history study of the tufted titmouse, *Parus bicolor* Linnaeus. Ph.D. diss. Mich. State Univ., East Lansing. [Diss. Abstr. 20:1107-1108.]

1219. Pierovich, J. M., E. H. Clarke, S. G. Pickford, and F. R. Ward.

1975. Forest residues management guidelines for the Pacific Northwest. USDA For. Serv. Gen. Tech. Rep. PNW-33, 273 p. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

1220. Pinkowski, B. C.

1975. Growth and development of eastern bluebirds. Bird-Banding 46(4):273–289.

1221. Pinkowski, B. C.

1975. An additional record of two tree swallow females using the same nest box. Wilson Bull. 87(1):112–113.

1222. Pinkowski, B. C.

1976. Use of tree cavities by nesting eastern bluebirds. J. Wildl. Manage. 40(3):556–563.

1223. Pinkowski, B. C.

1977. Blowfly parasitism of eastern bluebirds in natural and artificial sites. J. Wildl. Manage. 41(2):272–276.

1224. Pinkowski, B. C.

1977. Foraging behavior of the eastern bluebird. Wilson Bull. 89(3):404-414.

1225. Pinkowski, B. C.

1978. Feeding of nestling and fledgling eastern bluebirds. Wilson Bull. 90(1):84–98.

1226. Pinkowski, B. C.

1979. Time budget and incubation rhythm in the eastern bluebird. Am. Midl. Nat. 101(2):427–433.

1227. Pinkowski, B. C.

1979. Effects of a severe winter on a breeding population of eastern bluebirds. Jack-Pine Warbler 57(1):8–12.

1228. Pinkowski, B. C.

1979. Annual productivity and its measurement in a multi-brooded passerine, the eastern bluebird. Auk 96(3):562-572.

1229. Pinkowski, B. C.

1979. Effect of nesting history on egg size in eastern bluebirds. Condor 81(2):210.

1230. Pirnie, M. D.

1943. Bird-house nuthatches. Jack-Pine Warbler 21:71–72.

1231. Pistorius, A.

1975. Ground-nesting purple martins. Auk 92(4): 814–815.

1232. Pitcher, K. W.

1968. Birds of the Fort Hall bottoms. M.S. thesis. Idaho State Univ., Pocatello. 50 p.

1233. Pitelka, F. A.

1941. Distribution of birds in relation to major biotic communities. Am. Midl. Nat. 25:113–137.

1234. Pitts, T. D.

1979. Foods of eastern bluebirds during exceptionally cold weather in Tennessee. J. Wildl. Manage. 43(3):752–754.

1235. Pitts, T. D.

1979. Nesting habits of rural and suburban house sparrows in northwest Tennessee. J. Tenn. Acad. Sci. 54(4):145–148.

1236. Planck, R. J.

1967. Nest site selection and nesting of the European starling (*Sturnus vulgaris* L.) in California. Ph.D. diss. Univ. Calif., Davis. 111 p.

1237. Platt, J. B.

1971. A survey of nesting hawks, eagles, falcons, and owls in Curlew Valley, Utah. Great Basin Nat. 31(2):51–65.

1238. Plunkett, R. L.

1979. The importance of birds in forest communities. *In* Management of North Central and Northeastern Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn, Jan. 23–25, 1979]. p. 4–8. USDA For. Serv. Gen. Tech. Rep. NC–51. North Cent. For. Exp. Stn., St. Paul, Minn.

1239. Poll, W.

1962. Feeding habits of the harlequin duck. Wildfowl Trust Annu. Rep. 13:126–129.

1240. Popelov, S. M.

1956. The economic significance of woodpeckers in the forests of the Leningrad region. Transl. from Zool. J. 35:600–605.

1241. Porter, L. B.

1930. Drilling habits of the flicker. Condor 32(1):1-5.

1242. Porter, L. B.

1932. Unusual nesting sites. Can. Field-Nat., p. 46-49.

1243. Pough, R. H.

1957. Audubon western bird guide. 316 p. Doubleday and Co., Inc., Garden City, N.Y.

1244. Post, P. W.

1979. An eruption of tufted titmice in the northeast. Am. Birds 33(3):249–250.

1245. Postovit, H. R.

1979. A survey of the spotted owl in northwestern Washington. 15 p. Natl. For. Prod. Assoc.

1246. Powers, H. W., III.

1966. Biology of the mountain bluebird in Montana. Condor 68(4):351–371.

1247. Preble, E. A.

1908. A biological investigation of the Athabaska-Mackenzie region. North Am. Fauna 27.

1248. Preston, R. W., and R. T. Norris.

1947. Nesting heights of breeding birds. Ecology 28(3):241–273.

1249. Price, J. B.

1936. The family relations of the plain titmouse. Condor 38:23–28.

1250. Price, M. H.

1903. Mrs. Chickadee's trials. Am. Ornithol. 3:302-303.

1251. Prigge, A.

1975. The bluebird trail project, 2nd annual report. Nat. Trails 9(6):57.

1252. Prince, A. H.

1968. Nest sites used by wood ducks and common goldeneyes in New Brunswick. J. Wildl. Manage. 34(3):489–500.

1253. Probst, J. R.

1979. Oak forest bird communities. *In* Management of North Central and Northeastern Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23–25, 1979]. p. 80–88. USDA For. Serv. Gen. Tech. Rep. NC–51. North Cent. For. Exp. Stn., St. Paul, Minn.

1254. Public Land Law Review Commission.1970. One third of the nation's land. 343 p. Washington, D.C.

1255. Purdy, J. B.

1889. Nesting habits of the white-bellied nuthatch, *Sitta carolinensis*. Ornithol. and Ool. Semi-annu. (Wilson Bull.) 1(2):40–41.

1256. Pynnonen, A.

1939. Beitrage zur kenntnis der Biologie Finnisher Spechte. Pt. 1. Annu. Zool. Soc. Zool. – Bot. Fenn. Vanamo', 7(2):1–66.

1257. Quinn, J. L.

1955. An unsuccessful bluebird nest. Passenger Pigeon 17:154–155.

1258. Ramsden, D. J., L. J. Lyon, and G. L. Halvorson. 1979. Small bird populations and feeding habitats – western Montana in July. Am. Birds 33(1):11–16.

1259. Rand, A. L.

1959. The pitch-plastering of the red-breasted nuthatch. Audubon 61(6):270–272.

1260. Rand, A. L.

1972. Nest-entrance modifications in the nuthatches. Auk 89:450–451.

1261. Randall, C. H.

1979. In search of the bird of fire. Ill. Audubon Bull. 188, p. 9–11.

1262. Rasmussen, D. I.

1941. Biotic communities of the Kaibab Plateau, Arizona. Ecol. Monogr. 11(3):229–275.

1263. Ratchke, B. J.

1974. Red squirrel attacks a pileated woodpecker. Wilson Bull. 86(4):465–466.

1264. Rea, A. M.

1968. Age, sex, and race determination of yellow-bellied sapsuckers. West. Bird-banding 43:46–47.

1265. Ream, C. H.

1979. Human-wildlife conflicts in backcountry: possible solutions. *In* Conf. Proc., Recreational Impact on Wildlands [Seattle, Wash., Oct. 27–29, 1978]. p. 153–163. Univ. Wash., Seattle.

1266. Ream, C. H.

1980. Impact of backcountry recreationists on wildlife: an annotated bibliography. USDA For. Serv. Gen. Tech. Rep. INT-84, 60 p. Intermt. For. and Range Exp. Stn., Ogden, Utah.

1267. Redig, P. T.

1979. Raptor management and rehabilitation. *In*Management of North Central and Northeastern
Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23-25, 1979]. p. 226-237.
USDA For. Serv. Gen. Tech. Rep. NC-51. North
Cent. For. Exp. Stn., St. Paul, Minn.

1268. Reed, C. A.

1905. Tufted titmouse. Am. Ornithol. 5:223-225.

1269. Reed, C. A.

1965. North American bird eggs. 372 p. Dover Publications, Inc., New York.

1270. Reed, J. H.

1897. Notes on the American barn owl in eastern Pennsylvania. Auk 14(4):374–383.

1271. Reinecke, E.

1900. The brown creeper, *Certhia familiaris americana* Ridgw. Oologist 17:8-9.

1272. Reller, A. W.

1972. Aspects of behavioral ecology of red-headed and red-bellied woodpeckers. Am. Midl. Nat. 88(2): 270–290.

1273. Riabinin, S.

1957. Observations on birds inhabiting trees in fields and in forests at Wandzin. Ekologiz Polska – Series A 5(10):311-355.

1274. Richards, G.

1908. An unusual nesting locality for the Rocky Mountain nuthatch. Condor 10(5):194–195.

1275. Richards, G. L.

1972. American kestrel, *Falco sparverius*, exhibits relic nest building behavior. Condor 72(4):476.

1276. Richmond, M. L., C. J. Henny, R. L. Floyd,
R. W. Mannan, D. M. Finch, and L. R. DeWeese.
1979. Effects of sevin-4-oil, dimilin, and orthene on forest birds in northeastern Oregon. USDA For.
Serv. Res. Pap. PSW-148, 19 p. Pac. Southwest For. and Range Exp. Stn., Berkeley, Calif.

1277. Ricklefs, R. E.

1972. Dominance and the niche in bird communities. Am. Nat. 106(950):538-545.

1278. Ridgway, R.

1889. The ornithology of Illinois, vol. 1. 550 p. Plantagraph Pringing and Stationery Co., Bloomington, Ill.

1279. Riley, C. G.

1952. Studies in forest pathology. IX. *Fomes igniarius* decay of poplar. Can. J. Bot. 30:710-734.

1280. Ritchison, G.

1979. Social organization in winter flocks of black-capped chickadees. Loon 51(3):121-126.

1281. Ritter, W. E.

1938. The California woodpecker and I. 340 p. Univ. Calif. Press, Berkeley.

1282. Robbins, C. S.

1978. Census techniques for forest birds. *In* Management of Southern Forests for Nongame Birds, Workshop Proc. [Atlanta, Ga., Jan. 24–26, 1978]. p. 142176. USDA For. Serv. Gen. Tech. Rep. SE–14. Southeast. For. Exp. Stn., Asheville, N.C.

1283. Robbins, C. S.

1979. Effect of forest fragmentation on bird populations. *In* Management of North Central and Northeastern Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23-25, 1979]. p. 198-213. USDA For. Serv. Gen. Tech. Rep. NC-51. North Cent. For. Exp. Stn., St. Paul, Minn.

1284. Robbins, C. S., B. Brunn, and H. S. Zim.1966. Birds of North America. 340 p. Golden Press, New York.

1285. Robbins, C. S., and A. J. Erskine.

1975. Population trends in non-game birds in North America. Trans. North Am. Wildl. Nat. Resour. Conf. 40: 288-293.

1286. Roberts, A. R.

1920. Cedar farm and two wrens. Bird-Lore 22: 143–145.

1287. Roberts, H. B.

1969. Management plan for the Crane Prairie Reservoir Osprey Management Area. 20 p. Oreg. State Game Comm. and USDA For. Serv.

1288. Roberts, R. C.

1979. Habitat and resource relationships in acorn woodpeckers. Condor 81(1):1-8.

1289. Roberts, T. S.

1932. Birds of Minnesota, vol. 1. Univ. Minn. Press, Minneapolis.

1290. Roberts, T. S.

1932. Birds of Minnesota, vol. 2. 821 p. Univ. Minn. Press, Minneapolis.

1291. Roberts, T. S.

1934. Bird portraits in color. Univ. Minn. Press, Minneapolis.

1292. Robinson, H. J.

1927. Tree swallow habits and behavior at Brewer, Maine. Bull. Northeast. Bird-banding Assoc. 3:89–93.

1293. Robinson, H. J.

1928. Domestic vicissitudes of bluebirds. Bull. Northeast. Bird-banding Assoc. 4:21–25.

1294. Roe, A. L.

1948. A preliminary classification of tree vigor for western larch and Douglas-fir trees in western Montana. USDA For. Serv., North. Rocky Mt. For. and Range Exp. Stn., Res. Note 66, Missoula, Mont.

1295. Roest, A. I.

1957. Notes on the American sparrow hawk. Auk 74(1): 1-19.

1296. Rogers, D. T.

1967. Bird populations of four different plant communities in the Blue Ridge Mountains. J. Ala. Acad. Sci. 38(2):172–176.

1297. Rogers, D. T., Jr., J. A. Jackson, B. J. Schardien, and M. S. Rogers.

1979. Observations at a nest of a partial albino redheaded woodpecker. Auk 96(1):206–207.

1298. Root, R. B.

1964. Ecological interactions of the chestnut-backed chickadee following a range extension. Condor 66: 229-238.

1299. Roppe, J. A.

1974. Effects on wildlife of a fire in a lodgepole pine forest. M.S. thesis. Colo. State. Univ., Fort Collins.

1300. Roppe, J. A., and D. Hein.
1978. Effects of fire on wildlife in a lodgepole pine forest. Southwest. Nat. 23(2):279–288.

1301. Rosenwinkel, A. C. 1956. Chickadees excavate nesting cavity. Flicker 28:39.

1302. Rothenberry, J. T., and J. A. Wiens.

1978. Non-game bird communities in northwestern rangelands. *In* The Workshop on Nongame Bird Habitat Management in Coniferous Forests of the Western United States, Proc. [Portland, Oreg., Feb. 7–9, 1977]. p. 32–46. USDA For. Serv. Gen. Tech. Rep. PNW–64. Pac. Northwest. For. and Range Exp. Stn., Portland, Oreg.

1303. Rothschile, M., and T. Clay.1952. Fleas, flukes and cuckoos. 304 p. Philosophical Library, London.

1304. Rov, N.

1975. Breeding bird community structure and species diversity along an ecological gradient in deciduous forest in western Norway. Ornis. Scand. 6(1):1–14.

1305. Royall, W. C., Jr.966. Breeding of the starling in central Arizona. Condor 68(2):196–205.

1306. Ruge, K.

973. On the biology of the three-toed woodpecker *Picoides tridactylus*. Ornithol. Beob. 68:256–271.

1307. Rumsey, R. L. 1968. A pole's-eye view of wo

1968. A pole's-eye view of woodpeckers. Forest and People 18(2):367–369.

1308. Rumsey, R. L.

968. Capture and care of pileated and red-headed woodpeckers. Bird-Banding 34(4):313–316.

1309. Rumsey, R. L.

1970. Woodpeckers attack on utility poles – a review. For. Prod. J. 10(11):54–59.

1310. Rumsey, R. L.

1970. Woodpecker nest failures in creosoted utility poles. Auk 87(2):367–369.

1311. Rumsey, R. L.

1973. Pole warp prevents woodpecker damage. Transm. and Distrib. 25(8):34, 101.

1312. Rumsey, R. L., and G. E. Woodson.

1973. Strength loss in southern pine poles damaged by woodpeckers. For. Prod. J. 23(12):47-50.

1313. Rundel, P. W.

1973. The relationship between basal fire scars and crown damage in giant sequoia. Ecology 54(1): 210–213.

1314. Ruppert, K.

1953. Recent results in increasing the nesting density of birds useful in forestry. Mitt. Biol. Zenznst. Berl. 75:41–45.

1315. Rushmore, F. M.

1969. Sapsucker damage varies with tree species and seasons. USDA For. Serv. Res. Pap. NE-136, 19 p. Northeast. For. Exp. Stn., Broomall, Pa.

1316. Rushmore, F. M.

1973. Techniques for calling sapsuckers and finding their nesting territories. USDA For. Serv. Res. Pap. NE-281, 7 p. Northeast. For. Exp. Stn., Broomall, Pa.

1317. Russell, R. P., Jr.

978. First record of a hooded merganser – wood duck hybrid in the wild. Loon 50(4):208209.

1318. Russell, W. C.

1947. Mountain chickadees feeding young Williamson sapsuckers. Condor 49:83.

1319. Rust, H. J.

1915. An annotated list of the birds of Kootenai County, Idaho. Condor 17(3):118–129.

1320. Rust, H. J.

1916. Additional notes on the birds of Kootenai County, Idaho. Condor 18(2):81–82.

1321. Rust, H. J.

1916. An annotated list of the birds of Fremont County, Idaho, as observed during the summer of 1916. Condor 19(2):29–43.

1322. Rustad, O. A.

1972. Tree swallow nesting study on a bluebird trail in south central Minnesota. Loon 44(4):100–105.

1323. Rustad, O. A.

1972. An eastern bluebird nesting study in south central Minnesota. Loon 44(3):80–84.

1324. Rylander, M. K., and E. G. Bolen.
1974. Feeding adaptations in whistling ducks (*Dendrocygna*). Auk 91(1):86–94.

1325. Saling, A.

1978. Tree house. Pac. Search 13(1):32.

1326. Salt, G. W.

1953. An ecological analysis of three California avifaunas. Condor 55:258–273.

1327. Salt, G. W.

1957. An analysis of avifaunas in the Teton Mountains and Jackson Hole, Wyoming. Condor 59:373–393.

1328. Salyer, J. C., and K. F. Lagler.

1940. The food habits of the American merganser in relation to fish management. J. Wildl. Manage. 4: 186-219.

1329. Samson, F. B.

1979. Lowland hardwood bird communities. *In*Management of North Central and Northeastern
Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 2325, 1979]. p. 49–66. USDA
For. Serv. Gen. Tech. Rep. NC-51. North Cent. For. Exp. Stn., St. Paul, Minn.

1330. Sanders, C. J.

1964. The biology of carpenter ants in New Brunswick. Can. Entomol. 96(6):894–909.

1331. Sands, A., ed.

1977. Symposium on Riparian Forests in California: Their Ecology and Conservation, Proc. Inst. Ecol. Publ. 15, Univ. Calif. Davis.

1332. Santee, R., and W. Granfield.

1939. Behavior of the saw-whet owl on its nesting grounds. Condor 41(1):3-9.

1333. Sappinton, J. N.

1977. Breeding biology of house sparrows in northern Mississippi. Wilson Bull. 89(2);300–309.

1334. Saunders, A. A.

1912. Some birds of southwestern Montana. Condor 14(1):22–32.

1335. Saunders, A. A.

1915. A summer at Flathead Lake, Montana. Condor 17:109–115.

1336. Saunders, A. A.

1916. Plumage of the young male red-shafted flicker. Condor 18:82.

1337. Saunders, A. A.1916. Additions and changes to the summer birds of Flathead Lake, Montana. Condor 18:85.

1338. Saunders, A. A.1923. The summer birds of the Alleghany State Park.Roosevelt Wildl. Bull. 1(3):239-354.

1339. Saunders, A. A.
1929. Some birds of the northern Adirondak Mountains. Roosevelt Wildl. Bull. 5(3):327-504.

1340. Schneegas, E. R.
1975. National Forest non-game bird management. *In*Symposium on Management of Forest and Range
Habitats for Nongame Birds, Proc. [Tucson, Ariz.,
May 6-9, 1975]. p. 314-318. USDA For. Serv. Gen.
Tech. Rep. WO-1. Washington, D.C.

1341. Scheele, W. E.
1968. Woodpeckers and habitat change. Explorer
10(4):4–7.

1342. Scheffer, T. H., and C. Cottam.1935. The crested myna, or Chinese starling, in the Pacific Northwest. U.S. Dep. Agric. Tech. Bull. 467, 27 p. Washington, D.C.

1343. Schemnitz, S. D.
1964. Nesting association of pileated woodpecker and yellow-shafted flicker in a utility pole. Wilson Bull. 76(1):95.

1344. Schmid, J. M., and R. H. Frye.1977. Spruce beetle in the Rockies. USDA For. Serv.Gen. Tech. Rep. RM-49, 38 p. Rocky Mt. For. andRange Exp. Stn., Fort Collins, Colo.

1345. Schmidly, D. J., and R. B. Ditton.
1978. Relating human activity and biological resources in riparian habitats of western Texas. *In* Strategies for Protection and Management of Floodplain Wetlands and Other Riparian Ecosystems, Proc. Symp. [Callaway Gardens, Ga., Dec. 11-13, 1978]. p. 107-116. USDA For. Serv. Gen. Tech. Rep. WO-12. Washington, D.C.

1346. Schmidt, W. C., R. C. Shearer, and A. L. Roe.
1976. Ecology and silviculture of western larch forests.
U.S. Dep. Agric. Tech. Bull. 1520, 96 p.
Washington, D.C.

1347. Schwartze, C. D., and G. D. Alcorn.
1960. House finches feeding menaces cultivated blueberries. Murrelet 41(1):8-9.

1348. Scott, L. 974. Indian head bluebird trail report, 1974. Blue Jay 32(4):239-240.

1349. Scott, L., and J. Lane.
1974. Mountain bluebird travels 130 miles to renest.
Blue Jay 32(1):44-45.

1350. Scott, T. G.
1938. Some saw-whet owls in central Iowa. Wilson Bull.
50(4):239–242.

1351. Scott, V. E.978. Characteristics of ponderosa pine snags used by cavity nesting birds in Arizona. J. For. 76:26-28.

1352. Scott, V. E.1979. Bird response to snag removal in ponderosa pine.J. For. 77(1):26-28.

1353. Scott, V. E., and D. R. Patton.
1975. Cavity nesting birds of Arizona and New Mexico forests. USDA For. Serv. Gen. Tech. Rep. RM-10, 52 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

1354. Scott, V. E., K. E. Evans, D. R. Patton, and C. P. Stone.
1977. Cavity nesting birds of North American forests. USDA For. Serv. Agric. Handb. 511, 112 p. Washington, D.C.

1355. Scott, V. E., J. A. Whelan, and R. R. Alexander.
1978. Dead trees used by cavity-nesting birds on the
Fraser Experimental Forest: a case study. USDA For.
Serv. Res. Note RM-360, 4 p. Rocky Mt. For. and
Range Exp. Stn., Fort Collins, Colo.

1356. Seeman, E.1906. A wren family. Am. Ornithol. 6:134–136.

1357. Seidensticker, I. V., J. C. Kilham, and L. Kilham. 1968. A device for examining nesting cavities. Bird-Banding 39(3):228–230.

1358. Seidensticker, I. V., J. C. Kilham, and R. E. Welch.
1972. The birds of Big Creek and Chamberlain Basin,
Idaho Primitive Area, field checklist. 4 p. USDA
For. Serv., Payette Natl. For., McCall, Idaho.

1359. Selander, R. K., and D. R. Giller.1959. Interspecific relations of woodpeckers in Texas.Wilson Bull. 71:107-124.

1360. Selander, R. K., and D. R. Giller.1965. Sexual dimorphism in relation to foraging behavior in the hairy woodpecker. Wilson Bull.77(4):416.

1361. Selander, R. K., and D. R. Giller.1966. Sexual differences and niche utilization in birds.Condor 68:113-151

1362. Selleck, D. M., and B. Glading.
1943. Food habits of nesting barn owls and marsh
hawks at Dune Lakes, California, as determined by
the cage nest method. Calif. Fish and Game
20:122-131.

1363. Sevast' Janov, G. N.1962. The distribution of nest-holes in the Archangel taiga. Ornitologija, Moskva 5:86-91.

1364. Shaw, C. R.

971. Timber management practices for red-cockaded woodpeckers on State lands. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971].

p. 128–134. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]

1365. Shaw, E.
1958. The bark bugs' enemy. Colo. Outdoors 7:24–25.

1366. Shaw, H. S., Jr.
916. Some experiences in attracting birds. The nesting of a red-breasted nuthatch. Bird-Lore 18:166–170.

1367. Shelley, L. O.
1928. Turkey vulture in New Hampshire. Auk 45:503.

1368. Shelley, L. O.1933. Some notes on the hairy woodpecker. Bird-Banding 4:204–205.

1369. Sherman, A. R.1910. At the sign of the northern flicker. Wilson Bull.22:135-166.

1370. Sherman, A. R.1916. A peculiar habit of the house wren. Wilson Bull.28:94–95.

1371. Sherman, A. R.
1927. Additional evidence against the house wren.
Wilson Bull. 39(3):129–132.

1372. Shigo, A. L.1965. Sapsucker damage to forest trees. For. Notes 82:3-6.

1373. Shigo, A. L.
1968. Sapsuckers and *Fomes igniarius* var. *populinus*.
USDA For. Serv. Res. Note NE-84, 2 p. Northeast.
For. Exp. Stn., Broomall, Pa.

1374. Shigo, A. L., and L. Kilham.
1969. The death and decay of trees. Nat. Hist. 78(3):
42-47

1375. Shigo, A. L., and E. H. Larson.
1969. A photo guide to the patterns of discoloration and decay in living northern hardwood trees. USDA For. Serv. Res. Pap. NE-127, 100 p. Northeast. For. Exp. Stn., Broomall, Pa.

1376. Shilov, J. A.1959. The distribution of the entrance of man-made bird nests. Priroda 6:116.

1377. Shilova-Krassova, S. A.
1953. On the activity of insectivorous birds in a place of mass outbreak of harmful forest insects. Zool. Zhur.
32(4):955-963.

1378. Shivley, M. J.
1979. Radiographic anatomy of the barred owl. Vet.
Med. Small Anim. Clin. 74(4):552–558.

1379. Shook, R. S., and P. H. Baldwin.
1970. Woodpecker predation on bark beetles in Engelmann spruce logs as related to stand density. Can.
Entomol. 102(11):1345-1354.

1380. Short, H. L., and C. Y. McCulloch.
1977. Managing pinyon-juniper ranges for wildlife.
USDA For. Serv. Gen. Tech. Rep. RM-47, 10 p.
Rocky Mt. For. and Range Exp. Stn., Fort Collins,
Colo.

1381. Short, L. L., Jr.1965. Hybridization in the flickers (*Colaptes*) of North America. Am. Mus. Nat. Hist. Bull. 129:307-428.

1382. Short, L. L., Jr.1968. Variation of the ladder-backed woodpeckers in southwestern North America. Proc. Biol. Soc. Wash. 81:1-10.

1383. Short, L. L.
1970. Reversed sexual dimorphism in tail length and foraging differences in woodpeckers. Bird-Banding 41:85-92.

1384. Short, L. L.1970. The habits and relationships of the Magellanic woodpecker. Wilson Bull. 82(2):115-129.

1385. Short, L. L.971. The evolution of terrestrial woodpeckers. Am.Mus. Novitiates 2467, 23 p.

1386. Short, L. L.
1971. Woodpeckers without woods. Nat. Hist. 80(3):
66-74.

1387. Short, L. L.
1971. Systematics and behavior of some North American woodpeckers genus *Picoides* (Aves). Am. Mus. Nat. Hist. Bull. 145(1):1-118.

1388. Short, L. L.
1973. Habits of some Asian woodpeckers (Aves. Picidae).
Bull. Mus. Nat. Hist. 152(5):253–364.

1389. Short, L. L.
1973. Habits, relationships, and conservation of the Okinawa woodpeckers. Wilson Bull. 85(1):5-20.

1390. Short, L. L.1973. The green-barred flicker and golden-green woodpecker of South America. Living Bird 12:51–54.

1391. Short, L. L.
1974. Habits and interactions of North American three-toed woodpeckers (*Picoides arcticus* and *Picoides tridactylus*). Am. Mus. Novitiates 2547, 42 p.

1392. Short, L. L.1979. Burdens of the picid hole-excavating habit.Wilson Bull. 91(1):16.

1393. Short, L. L., and J. J. Mornony, Jr.1970. A second hybrid Williamson's X red-naped sapsucker and an evolutionary history of sapsuckers.Condor 72:310-315.

1394. Shugart, H. H.
1974. Influence of habitat alterations on bird and small mammal populations. *In* Timber-Wildlife Management Symposium. Mo. Acad. Sci. Occas. Pap. 3:92–96. Univ. Mo., Columbia.

1395. Shugart, H. H., Jr., and D. James.1973. Ecological succession of breeding bird populations in northwestern Arkansas. Auk 90:62-77.

1396. Shugart, H. H., S. H. Anderson, and R. H. Strand.
1975. Dominant patterns in bird populations of the eastern deciduous forest biome. *In* Symposium on Management of Forest and Range Habitats for Nongame Birds, Proc. [Tucson, Ariz., May 6-9, 1975].
p. 90-95. USDA For. Serv. Gen. Tech. Rep. WO-1. Washington, D.C.

1397. Shugart, H. H., T. M. Smith, J. T. Kitchings, and R. L. Kroodsma.
1978. The relationship of non-game birds to southern forest types and successional stages. *In* Management of Southern Forests for Nongame Birds, Workshop Proc. [Atlanta, Ga., Jan. 24–26, 1978]. p. 5–16. USDA For. Serv. Gen. Tech. Rep. SE-14. Southeast.

For. Exp. Stn., Asheville, N.C.
1398. Siderits, K. P., compiler.
1978. Birds of the Superior National Forest. 82 p.
USDA For. Serv., East. Reg., Milwaukee, Wis.

1399. Siderits, K., and R. E. Radke.
1977. Enhancing forest wildlife habitat through diversity.
Proc. North Am. Wildl. and Nat. Resour. Conf. 42:
425-434.

1400. Sielmann, H.1957. Windows in the woods. Harper & Rowe, New York.

1401. Sielmann, H.

1960. Carpenters of the forest. Nat. Hist. 69(10):16-21. 1402. Silloway, P. M. 1909. The birds of Fergus County, Montana. 77 p.

Press of the Argus, Lewistown, Mont.

Silovsky, G. D., and C. Pinto.
1974. Forest wildlife inventories: identification of conflicts and management needs. *In* Wildlife and Forest Management in the Pacific Northwest, Proc. Symp. [Corvallis, Oreg., Sept. 11–12, 1973]. p. 53–61. Oreg. State Univ., Corvallis.

1404. Simochko, M.

1973. Some features of cavity-nesting birds; preference in Transcarphatia. Vestn. Zool. 7(1):11-14.

1405. Simpson, M. B., Jr.

1969. The prothonotary warbler in the Carolina Piedmont. Chat 33(2):31–37.

1406. Simpson, R. B.
1914. The winter wren. Oologist 31:186–188.

1407. Simpson, R. B.
1921. The brown creeper. Oologist 38:153–154.

1408. Skaar, P. D.

1975. Montana bird distribution: preliminary mapping by latilong. Skaar, Bozeman, Mont.

1409. Skaggs, M. B.

1974. Two kestrel nestings. Inland Bird-banding News 46(5):171-176.

1410. Skornpa, J. P., and R. W. McFarlane.1976. Seasonal variation in foraging territories of redcockaded woodpeckers. Wilson Bull. 88:662–664.

1411. Skutch, A. F.

1933. Male woodpeckers incubating at night. Auk 59:437.

1412. Skutch, A. F.

1937. The male flicker's part in incubation. Bird-Lore 30:112.

1413. Skutch, A. F.

1943. The family life of Central American woodpeckers. Sci. Mon. 56:358–364.

1414. Skutch, A. F.

1955. The hairy woodpecker in Central America. Wilson Bull. 67(1):25-32.

1415. Slack, H. E., III.

1979. Abnormal maxilla in a tufted titmouse: probable cause and growth. North Am. Bird Bander 4(3):112.

1416. Sladek, J.

1954. Using birds to control forest pests. Les. Bratislava 1(9):12-17.

1417. Sloan, N. F., and H. C. Coppel.

1968. Ecological implications of bird populations on the larch casebearer in Wisconsin. J. Econ. Entomol. 61(4):1067–1070.

1418. Small, A.

1974. The birds of California. 310 p. Winchester Press, New York.

1419. Smith, C. F., and S. E. Aldous.

1947. The influence of mammals and birds in retarding artificial and natural reseeding of coniferous forests in the United States. J. For. 45:361–369.

1420. Smith, D. G., tech. coord.

1975. Symposium on Management of Forest and Range Habitats for Nongame Birds, Proc. [Tucson, Ariz., May 6-9, 1975]. USDA For. Serv. Gen. Tech. Rep. WO-1, 343 p. Washington, D.C.

1421. Smith, D. G., and H. H. Frost.

1970. Fall nesting barn owls in Utah. Condor 72:492.

1422. Smith, D. G., C. R. Wilson, and H. H. Frost.1972. Seasonal foods of barn owls in Utah. Great Basin Nat. 32:229-234.

1423. Smith, D. G., C. R. Wilson, and H. H. Frost.1972. The biology of the American kestrel in central Utah. Southwest Nat. 71(1):73-83.

1424. Smith, D. G., C. R. Wilson, and H. H. Frost.1974. History and ecology of a colony of barn owls in Utah. Condor 76:131-136.

1425. Smith, D. G., and C. D. Mart.1976. Distributional status and ecology of barn owls in Utah. Raptor Res. 10(2):33-41.

1426. Smith, J. H.

1954. Ruby-throated hummingbird feeding at yellow-bellied sapsucker hole. Auk 71:316.

1427. Smith, L. M.

1970. Trapping woodpeckers. Inland Birdbanding News 42(2):68.

1428. Smith, L. M.

1971. Winter ecology of woodpeckers and nuthatches in southeastern South Dakota. Ph.D. diss. Univ. S. Dak., Vermillion. 122 p.

1429. Smith, L. M.

1973. Variation in the horizontal distribution of downy woodpeckers. Iowa Bird Life 43(1):23-24.

1430. Smith, S. M.

1967. A case of polygamy in the black-capped chickadee. Auk 84(2):274.

1431. Smith, S. M.

1967. Seasonal changes in the survival of the black-capped chickadee. Condor 69:259–267.

1432. Smith, S. M.

1974. Nest-site selection in black-capped chickadees. Condor 76(4):478–479.

1433. Smith, S. T.

1972. Communication and other social behavior in *Parus carolinensis*. Nuttall Ornithol. Club Publ. 11, 125 p.

1434. Smith, W. H.

1970. Tree pathology: a short introduction. 309 p. Academic Press, New York.

1435. Smith, W. P.

1937. Some bluebird observations. Bird-Banding 8: 25–30.

1436. Smirnov, O. P., and G. A. Noskov.

1975. Structure of great tit populations in the Leningrad region. Soviet J. Ecol. 6(6):553-557.

1437. Snedigar, R.

1963. Our small native animals: their habits and care. 248 p. Dover Publications, Inc., New York.

1438. Snow, R. B.

1941. A natural history of the Lewis woodpecker *Asyndesmus lewis* (Gray). M.S. Utah State Univ., Logan.

1439. Snyder, D. P.

1950. Bird communities in the coniferous forest biome. Condor 52:17–27.

1440. Snyder, J. O.

1900. Notes on a few species of Idaho and Washington birds. Auk 17(3):242-245.

1441. Solomon, J. D.

1969. Woodpecker predation on insect borers in living hardwoods. Ann. Entomol. Soc. Am. 62:1214-1215.

1442. Solomon, J. D., and R. C. Morris.

1970. Woodpeckers in the ecology of southern hardwood borers. Proc. Tall Timbers Conf. Anim. Contr. by Habitat Manage. 2:309–315.

1443. Southern, W. E.

1959. Foster-feeding and polygamy in the purple martin. Wilson Bull. 71:96.

1444. Southern, W. E.

1960. Copulatory behavior of the red-headed woodpecker. Auk 77:218-219.

1445. Sparks, J., and T. Soper.

1970. Owls: their natural and unnatural history. 206 p. Taplinger Publ. Co., New York.

1446. Spendlow, J. A.

1979. Screech owl hunting during daylight. North Am. Bird Bander 4(3):111.

1447. Spiker, C. J.

1935. A popular account of the bird life of the Finger Lakes section of New York with reference to the summer season. Roosevelt Wildl. Bull. 6(3):391-551.

1448. Spofford, S. H.

1969. Flicker incubates pink plastic balls, on a lawn, for five weeks. Wilson Bull. 81(2):214-215.

1449. Spring, L. W.

1965. Climbing and pecking adaptations in some North American woodpeckers. Condor 67(6):457–488.

1450. Springer, M. D.

1979. The effects of prescribed burning on browse, forbs, and mast in a Texas live oak savannah. Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies 31:188-198.

1451. Sprunt, A., and E. B. Chamberlain.

1949. South Carolina bird life. 655 p. Univ. S.C. Press, Columbia.

1452. Stacey, P. B.

1978. The ecology and evolution of communal breeding in the acorn woodpecker. Ph.D. diss. Univ. Colo., Boulder. 181 p.

1453. Stacey, P. B., and C. E. Bock.

1978. Social plasticity in the acorn woodpecker. Science 202(4374):1298–1300.

1454. Stacey, P. B., and R. Jansma.

1977. Storage of pinon nuts by the acorn woodpecker in New Mexico. Wilson Bull. 89:150-151.

1455. Staebler, A. E.

1949. A comparative life history study of the downy and hairy woodpeckers (*Dendrocopos pubescens* and *Dendrocopos villosus*). Ph.D. diss. Univ. Mich., Ann Arbor.

1456. Stager, K. E.

1947. Starling in California. Condor 49:169.

1457. Stahlecker, D. W., and H. J. Griese.

1977. Evidence of double brooding by American kestrels in Colorado high plains. Wilson Bull. 89(4):618-619.

1458. Stallcup, P. L.

1968. Spatio-temporal relationships of nuthatches and woodpeckers in ponderosa pine forests of Colorado. Ecology 49(5):831-843.

1459. Stallcup, P. L.

1969. Hairy woodpeckers feeding on pine seeds. Auk 86:134–135.

1460. Stamp, N. E.

1978. Breeding birds of riparian woodlands in south-central Arizona. Condor 80:64–71.

1461. Stanwood, C. J.

1911. A study of two chickadee families. J. Maine Ornithol. Soc. 13:25–32.

1462. Stanton, F.

1975. Fire impacts on wildlife and habitat. 48 p. U.S. Dep. Interior, Bur. Land Manage., Washington, D.C.

1463. Stauffer, D. F., and L. B. Best.

1980. Habitat selection by birds of riparian communities: evaluating effects of habitat alterations. J. Wildl. Manage. 44(1):1-15.

1464. Steel, P. E., P. D. Dalke, and E. G. Bizeau.
1956. Annotated list of the avifauna in and around
Gray's Lake, Idaho. Murrelet 37(1):4-10.

1465. Steel, R. C.

1972. Wildlife conservation in woodlands. G.B. For. Comm. Bookl. 29, 68 p. Her Majesty's Stationary Office, London.

1466. Stefanski, R. A.

1967. Utilization of the breeding territory in black-capped chickadee. Condor 69:259–267.

1467. Steidl, J.

1928. Sparrow hawk killing young chickens. Auk 45:503.

1468. Steirley, C. C.

1957. Nesting ecology of the red-cockaded woodpecker in Virginia. Atl. Nat. 12:280–292.

1469. Stevenson, E.

1942. Key to the nests of the Pacific coast birds. Oreg. State Monogr. Stud. Zool. 4.

1470. Stewart, P. A.

1972. The plight of wood ducks in the Carolinas. Chat 32(2):48–55.

1471. Stewart, P. A.

1974. A nesting of black vultures. Auk 91(3):595-600.

1472. Stewart, P. A.

1976. Movements of cavity-hunting starlings and eastern bluebirds. Bird-Banding 47(3):274–275.

1473. Stewart, P. A.

1979. Behavioral interactions and niche separation in black and turkey vultures. The Living Bird 17:79-84.

1474. Stewart, R. E.

1958. Nesting of the red-cockaded woodpecker in Maryland. Md. Birdlife 14:63–64.

1475. Stewart, R. E., and J. W. Aldrich.

1951. Removal and repopulation of breeding birds in a spruce-fir forest community. Auk 68:471–482.

1476. Stickel, P. W.

1940. The basal wounding of trees by fire. USDA For. Serv., Northeast. For. Exp. Stn., Tech. Note 30. Broomall, Pa.

1477. Stickel, D. W.

1963. Interspecific relations among red-bellied and hairy woodpeckers and a flying squirrel. Wilson Bull. 75:203-204.

1478. Stirling, D.

1961. Birds and insects at sapsucker working. Murrelet 42(3):43.

1479. Stocek, R. F.

1970. Observations on the breeding biology of the tree swallow. Cassinia 1970(52):3–20.

1480. Stoddard, H. L., Sr.1962. Some techniques of controlled burning in the deep south. Proc. Tall Timbers Fire Ecol. Conf. 1:133-144.

1481. Stoddard, H. L., Sr.1963. Bird habitat and fire. Proc. Tall Timbers FireEcol. Conf. 2:163-175.

1482. Stone, W.

1915. Type locality Lewis's woodpecker and Clarke's nutcracker. Auk 32(3):371–372.

1483. Strader, R. W., R. E. Murry, Sr., H. R. Perry, Jr., and R. B. Hamilton.1978. Hen wood duck calls brood from neighboring nest box. J. Wildl. Manage. 42(4):919–920.

1484. Strange, T. H., E. R. Cunningham, and J. W. Goertz. 1971. Use of nest boxes by wood ducks in Mississippi. J. Wildl. Manage. 35(4):786-793.

1485. Stransky, J. J., L. K. Halls, and E. S. Nixon.
1976. Plants following timber harvest: importance to songbirds. Tex. For. Pap. 28, 13 p. Stephen F.
Austin State Univ., Nacogdoches, Tex.

1486. Strokov, V. V.

1967. Characteristics of nesting in birds in artificial nests and in natural tree hollows. Zool. Zhur. Moskua 46(12):1831–1836.

1487. Struble, G. R.

1972. Biology, ecology, and control of lodgepole needle miner. U.S. Dep. Agric. Tech. Bull. 1458, 38 p. Washington, D.C.

1488. Sturman, W. A.
1968. Description and analysis of breeding habits of the chickadees, *Parus articapillus* and *P. rufescens*.
Ecology 49(3):418–431.

1489. Sturman, W. A.

1968. The foraging ecology of *Parus atricapillus* and *P. rufescens* in the breeding season, with comparisons with other species of *Parus*. Condor 70:309–322.

1490. Summers-Smith, D.

1963. The house sparrow. New Nat. Ser. Spec. Vol. 269 p. St. James Place, London.

1491. Sutton, G. M.

1930. Notes on the northern pileated woodpecker in Pennsylvania. Cardinal 2(8):207-217.

1492. Sutton, G. M.

1930. The nesting wrens of Brooke County, West Virginia. Wilson Bull. 42:10-17.

1493. Sutton, G. M.

1953. Bronzed woodpecker. Wilson Bull. 65(2):64-67.

1494. Sutton, G. M.

1967. Oklahoma birds. 674 p. Univ. Okla. Press, Norman.

1495. Swanson, G. A., tech. coord.

1979. The Mitigation Symposium: A national Workshop on Mitigating Losses of Fish and Wildlife Habitats [Fort Collins, Colo., July 16-20, 1979]. USDA For. Serv. Gen. Tech. Rep. RM-65, 684 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

1496. Swearingen, E. M.

1977. Group size, sex ratio, reproductive success, and territory size in acorn woodpeckers. West. Birds 8:21-24.

1497. Szaro, R. C., and R. P. Balda.1979. Effects of harvesting ponderosa pine on nongame bird populations. USDA For. Serv. Res. Pap.

RM-212, 8 p. Rocky Mt. For. and Range Exp. Stn., Fort Collins, Colo.

1498. Taberrer, D. K.

1971. The wood duck roost as an index to wood duck abundance in Louisiana. M.S. thesis. La. State Univ., Baton Rouge. 77 p.

1499. Talbot, L. M.

1976. New principles for management of wild living resources. West. Wildlands 3(1):28-32.

1500. Tanner, J. G.

1942. The ivory-billed woodpecker. Natl. Audubon Soc. Res. Rep. 1, 111 p.

1501. Tanner, J. T.

1952. Black-capped and Carolina chickadees in the southern Appalachian mountains. Auk 69:407–424.

1502. Tate, J. L., Jr.

1969. Foraging behavior of the eastern yellow-bellied sapsucker (*Sphyrapicus varius varius*). Ph.D. diss. Univ. Nebr., Lincoln. 144 p.

1503. Tate, J. L., Jr.

1973. Methods and annual sequence of foraging by the sapsucker. Auk 90(4):840–486.

1504. Tatschl, J. L.

1967. Breeding birds of the Sandia Mountains and their ecological distribution. Condor 69(5):479–490.

1505. Taylor, A. R.

1969. Lightning effects on the forest complex. Proc. Tall Timbers Fire Ecol. Conf. 9:127-150.

1506. Taylor, A. R., R. N. Kickert, D. H. Firmage, and M. J. Behan.

1975. Fire ecology questions survey. USDA For. Serv. Gen. Tech. Rep. INT-18, 122 p. Intermt. For. and Range Exp. Stn., Ogden, Utah.

1507. Taylor, C.

1933. The purple martin. p. 101–105. 1933 Ind. Audubon Soc. Yearb.

1508. Taylor, C. M., and W. E. Taylor.

1979. Birds of upland openings. *In* Management of North Central and Northeastern Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23–25, 1979]. p. 189–198. USDA For. Serv. Gen. Tech. Rep. NC-51. North Cent. For. Exp. Stn., St. Paul, Minn.

1509. Taylor, D. L.

1969. Biotic succession of lodgepole pine forests of fire origin in Yellowstone National Park. Ph.D. diss. Univ. Wyo., Laramie. 320 p.

1510. Taylor, D. L.

1973. A study of competition between mountain bluebirds and tree swallows in post-fire areas of Yellowstone National Park. 18 p. Rep. to Natl. Geogr. Soc.

1511. Taylor, D. L.

1979. Forest fires and the tree-hole nesting cycle in Grand Teton and Yellowstone National Parks. *In* Proc. First Conf. Sci. Res. Natl. Parks, vol. 1. [New Orleans, La., 1976]. p. 509-511. U.S. Dep. Interior, Natl. Park Serv. Trans. Series 5.

- 1512. Taylor, W. A.
 1947. Early bluebird breeding-record at Moose Hill.
 Bull. Mass. Audubon Soc. 31:211.
- 1513. Telford, A. D., and S. G. Herman. 1963. Chickadee helps check insect invasion. Audubon 65(2):79-81.
- 1514. Temple, S. A., ed.
 1978. Endangered Birds: Management Techniques for Protecting Threatened Species, Proc. Symp.
 [Madison, Wis., Aug. 1977]. 460 p. Univ. Wis. Press, Madison.
- 1515. Temple, S. A., M. J. Mossman, and B. Ambuel.
 1979. The ecology and management of avian communities in mixed hardwood-coniferous forests. *In*Management of North Central and Northeastern
 Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23–25, 1979]. p. 132–153.
 USDA For. Serv. Gen. Tech. Rep. NC–51. North
 Cent. For. Exp. Stn., St. Paul, Minn.
- 1516. Ten Eyck, E. F. 1907. A study of a house wren. Bird-Lore 9:201–203.
- 1517. Test, F. H.
 1945. Molt in flight feathers of flickers. Condor 47:
 63–72.
- 1518. Tevis, L., Jr.1953. Effect of vertebrate animals on seed crop of sugar pine. J. Wildl. Manage. 17(2):128-131.
- 1519. Thirey, E.1979. Starling thwarts feeding of pileated woodpecker young. Inland Bird Banding 51(3):58.
- 1520. Thomas, J. W., tech. ed.
 1979. Wildlife habitats in managed forests: the Blue
 Mountains of Oregon and Washington. USDA For.
 Serv. Agric. Handb. 553, 512 p. [Published in cooperation with the Wildl. Manage. Inst. and U.S.
 Dep. Interior, Bur. Land Manage.] Washington, D.C.
- 1521. Thomas, J. W., G. L. Crouch, R. S. Bumstead, and L. D. Bryant.
 1975. Silvicultural options and habitat values in coniferous forests. *In* Symposium on Management of Forest and Range Habitats for Nongame Birds, Proc. [Tucson, Ariz., May 6–9, 1975]. p. 272–287. USDA For. Serv. Gen. Tech. Rep. WO-1. Washington, D.C.
- 1522. Thomas, J. W., and R. M. DeGraaf.
 1973. Non-game wildlife research in megalopolis: the Forest Service Program. USDA For. Serv. Gen. Tech. Rep. NE-4, 12 p. Northeast. For. Exp. Stn., Broomall, Pa.
- 1523. Thomas, J. W., R. M. DeGraaf, and J. C. Mawson. 1977. Determination of habitat requirements for birds in suburban areas. 15 p. USDA For. Serv., Northeast. For. Exp. Stn., Broomall, Pa.
- 1524. Thomas, J. W., and D. C. McCluskey.
 1974. Effects of aerial application of DDT for tussock moth control on nestling survival of mountain bluebirds and house wrens. USDA For. Serv. Res. Pap. PNW-185, 37 p. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.
- 1525. Thomas, J. W., R. J. Miller, H. Black, J. E. Rodiek, and C. Maser.
 - 1976. Guidelines for maintaining and enhancing wildlife habitat in forest management in the Blue Mountains of Oregon and Washington. *In* Trans. 41st North.

- Am. Wildl. and Nat. Resour. Conf., Washington, D.C. p. 452-476.
- 1526. Thomas, R. H.1946. A study of eastern bluebirds in Arkansas. Wilson Bull. 58(3):143-183.
- 1527. Thomas, R. R.
 1958. The bluebird that couldn't remember. Audubon
 Mag. 60:114-115, 137.
- 1528. Thomas, R. R. 1961. Wren forever. Audubon Mag. 64:16–17, 54–56.
- 1529. Thompson, B. C.1977. Behavior of Vaux's swifts nesting and roosting in a chimney. Murrelet 58(3):73-77.
- 1530. Thompson, E. E.
 1891. The birds of Manitoba. Proc. U.S. Natl. Mus.
 13:457-643.
- 1531. Thompson, R. L., ed.
 1971. The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. 188 p. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]
- 1532. Thompson, R. L.1976. Change in status of red-cockaded woodpecker colonies. Wilson Bull. 88:491–492.
- 1533. Thompson, R. L., and W. W. Baker.

 1971. A survey of red-cockaded woodpecker nesting habitat requirements. *In* The Ecology and Management of the Red-cockaded Woodpecker, Proc. Symp. [Folkston, Ga., May 26–27, 1971]. p. 170–188. U.S. Dep. Interior, Bur. Sport Fish. Wildl. [Published in cooperation with Tall Timbers Res. Stn., Tallahassee, Fla.]
- 1534. Thoms, C. S. 1910. A chickadee home. Bird-Lore 12:220–225.
- 1535. Thoms, C. S. 1927. Winning the chickadee. Bird-Lore 29:191–192.
- 1536. Thurow, T. L., and S. R. Peterson.1978. A preliminary survey of raptorial birds in the Idaho Primitive Area. Univ. Idaho, Moscow, Wilderness Res. Cent. Stn., Note 31.
- 1537. Tinbergen, L.1960. Dynamics of insect and bird populations in pine woods. Archiv. Neerlandaises Zool. 13(3):259-472.
- 1538. Tinbergen, L.1960. The natural control of insects in pinewoods. I.Factors influencing the intensity of predation by songbirds. Archiv. Neerlandaises Zool. 13:265-343.
- 1539. Tippens, J. R. 1943. Bewick's wren nesting. Migrant 14:59.
- 1540. Todd, W.
 1979. Breeding notes on the acorn woodpecker, *Melanerpes formicivorus*, at the Houston Zoological Gardens. Avicult. Mag. 85(2):68–74.
- 1541. Toole, E. R.1965. Fire damage to commercial hardwoods in southern bottom lands. Proc. Tall Timbers Fire Ecol. Conf. 4:144–151.
- 1542. Toole, E. R., and G. M. Furnival. 1957. Progress of heart rot following fire in bottomland red oaks. J. For. 55:20–24.
- 1543. Townsend, M. R.
 1914. Turkey vultures in northwestern Iowa. Bird-Lore
 16(4):279-280.

1544. Travis, J.

1977. Seasonal foraging in downy woodpecker populations. Condor 79:371–375.

1545. Treat, M.

1881. The great crested flycatcher. Am. Nat. 15: 601-604.

1546. Trefethen, J. B., ed.

1966. Wood duck management and research: a symposium theme: emphasizing management of forests for wood ducks. Wildl. Manage. Inst., Washington, D.C.

1547. Trimble, S. A.

1975. Non-game birds of the West. An annotated bibliography. U.S. Dep. Interior, Bur. Land Manage., Denver Serv. Cent. Tech. Note 268.

1548. Trine, G. W.

1935. Some Nebraska experiences with the northern purple martin. Nebr. Bird Rev. 3:79-82.

1549. Trine, G. W.

1940. The northern purple martin as a neighbor. Nebr. Bird Rev. 8:45–49.

1550. Troetschler, R. G.

1976. Acorn woodpecker breeding strategy as affected by starling nest-hole competition. Condor 78(2): 151–165.

1551. Truslow, F. K.

1966. When disaster struck a woodpecker's home. Natl. Geogr. 130(6):882-884.

1552. Truslow, F. K.

1967. Egg-carrying by a pileated woodpecker. Living Bird 6:227–236.

1553. Truslow, F. K.

1970. Pileates in a pine tree. Audubon 72(2):8-13.

1554. Tunnock, S., R. E. Denton, C. E. Carlson, and W. W. Janssen.

1969. Larch casebearer and other factors involved with deterioration of western larch stands in northern Idaho. USDA For. Serv. Res. Pap. INT-68, 10 p. Intermt. For. and Range Exp. Stn., Ogden, Utah.

1555. Turcek, F. J.

1960. Some aspects of the interrelationships of birds, insects, and trees, from the point of view of biological protection of the forests. Ved. Prac. Vuskum. Ust. Lens. Hsop. Bansk. Stiav. 1:259–280.

1556. Turcek, F. J.

1960. Ecological relationships of birds and woody plants. Vydavatel'stov Slovenskej Akademie Vied, Bratislava. 330 p.

1557. Tutt, H. R.

1951. Data on the excavation of the nest hole and feeding of the young of green woodpecker (*Picus virdis*). *In* Proceedings 10th International Ornithological Congress, Univ. Pensacola, Fla. p. 555–562.

1558. Twente, J. W., Jr.

1954. Predation on bats by hawks and owls. Wilson Bull. 66(2):135–136.

1559. Tyler, J. D.

1979. Nest of Lewis's woodpecker in Cimarron County, Okla. Bull. Okla. Ornithol. Soc. 12(2):14-15.

1560. Tyler, W. M.

1911. A study of a nuthatch. Wilson Bull. 28:18-25.

1561. Tyler, W. M.

1914. Notes on the nest life of the brown creeper in Massachusetts. Auk 31:50–62.

1562. (Citation deleted.)

1563. Uchida, S.

1932. Studies of swallows by banding method. Bird-Banding 3(1):1-11.

1564. Udvardy, M. D. F.

1969. Birds of the coniferous forest. *In* Coniferous Forests of the Northern Rocky Mountains, Proc. Symp. [Missoula, Mont., Sept. 17–20, 1968]. p. 99–130. Univ Mont., Missoula.

1565. Udvardy, M. D. F.

1977. The Audubon Society field guide to North American birds, western region. 853 p. Alfred A. Knopf, Inc., New York.

1566. Underwood, E. F.

1945. The vagaries of Jenny Wren. Bull. Mass. Audubon Soc. 29:188.

1567. USDA Forest Service

1951. Are snags a fire problem? USDA For. Serv. Fire Control Notes 12:(4):19.

1568. USDA Forest Service.

1958. Forest Service Manual, Title 2400-Timber Management, Chapter 2480, Protection of Timber and Timberlands.

1569. USDA Forest Service.

1959. Timber or snags for 1959? USDA For. Serv., Pac. Southwest For. and Range Exp. Stn., Misc. Pap. 34, 4 p. Berkeley, Calif.

1570. USDA Forest Service.

1965. Forest Service Manual, Title 2400-Timber Management, Section 2476-Timber Improvement.

1571. USDA Forest Service.

1969. Wildlife habitat improvement handbook. Washington, D.C.

1572. USDA Forest Service.

1971. Forest Service Manual, Title 5100-Fire Control, Chapter 5150-Fuel Management.

1573. USDA Forest Service

1973. Guidelines for management of cavity nesting habitat-woodpeckers. USDA For. Serv., Lolo Natl. For., unpubl. memo, 3 p.

1574. USDA Forest Service.

1974. Final environment statement. Northern Region's slash disposal problem. 307 p. Missoula, Mont.

1575. USDA Forest Service.

1974. Guidelines – wildlife habitat considerations in tussock moth salvage areas. Pac. Northwest For. and Range Exp. Stn., Range and Wildl. Habitat Lab., LaGrande, Oreg.

1576. USDA Forest Service.

1975. Region 6 dead tree (snag) policy. Emergency Directive no. 12. FSM 2400. 2405.14 Wildlife Management (FSM 2600). Portland, Oreg.

1577. USDA Forest Service.

1976. Fire management in the Selway-Bitterroot Wilderness – a proposed policy change. Bitterroot, Clearwater, Lolo, and Nezperce National Forests, Northern Region. Draft environmental statement USDA-FS-DES (Adm.) R1-76-12, 99 p. Missoula, Mont.

1578. USDA Forest Service.

1978. The dead Softwood Timber Resource, Symp. Proc. [Spokane, Wash., May 1978]. [In cooperation with Wash. State Univ., Pullman.]

1579. USDA Forest Service.

1978. Douglas-fir tussock moth program accomplishments report. Agric. Inf. Bull. 417, 9 p.

1580. USDA Forest Service.

1978. Species: birds, mammals, fish, reptiles and amphibians for the Forest Service, including separate lists for Idaho, Montana and North Dakota. USDA For. Serv., North. Reg. Publ. R1-78-112, 82 p. Missoula, Mont.

1581. USDA Forest Service.

1978. Checklist of birds, mammals, fish, reptiles and amphibians present on forest and rangelands in California. USDA For. Serv., Calif. Reg., San Francisco, Calif.

1582. U.S. Department of the Interior, Bureau of Sport Fisheries and Wildlife.

1968. Rare and endangered wildlife of the United States. Bur. Sport Fish. and Wildl. Res. Publ. 34. Washington, D.C.

1583. U.S. Department of the Interior, Bureau of Sport Fisheries and Wildlife.

1973. Threatened wildlife of the United States. Res. Publ. 114. Washington, D.C.

1584. U.S. Department of the Interior, Fish and Wildlife Service. 1976. Nest boxes for wood ducks. Wildl. Leafl. 510, 16 p. Washington D.C.

1585. Uspenskii, G. A., I. M. Ganya, and V. I. Egorov. 1962. Hole nesting birds of the forests and orchards of Moldavia, their practical significance, and problems attracting them. Questions of the ecology and practical importance of the birds and mammals of Moldavia. Stinnstsa (Kishinev):3-38.

1586. Van, C. M.

1962. Using nest-boxes for attracting the great tits to the cultivated larch woods. Acta Zool. Sinica (Peking) 14(2):288.

1587. Van Camp, L. F., and C. J. Henny.

1975. The screech owl: its life history and population ecology in northern Ohio. U.S. Dep. Interior, Fish and Wildl. Serv., North Am. Fauna 71, 65 p.

1588. Van Gilluwe, E.

1911. Nesting of the Carolina wren. Bird-Lore 13: 149–150.

1589. Van Sickle, C., and R. E. Benson.

1978. The dead timber resource—amounts and characteristics. *In* The Dead Softwood Timber Resource, Symp. Proc. [Spokane, Wash., May, 1978]. p. 127–138. USDA For. Serv. and Wash. State Univ., Pullman.

1590. Van Tyne, J.

1926. An unusual flight of arctic three-toed woodpeckers. Auk 43:469–474.

1591. Van Tyne, J.

1948. Home range and duration of family ties in the tufted titmouse. Wilson Bull. 69(2):121.

1592. Vaurie, C.

1959. Systematic notes on palearctic birds. No. 36. Picidae: the genus *Dendrocopos* (pt. 2) and *Picoides*. Am. Mus. Novitates 1951, 24 p.

1593. Verbeek, N. A. M.

1974. A possible yellow-shafted flicker nest in a river bank. Can. Field-Nat. 88(2):233-234.

1594. Verner, J.

1953. Birds of Laird Park. Latah County, Idaho. Murrelet 34(1):6-8.

1595. Verner, J.

1974. Notes on the current status of some birds of central Washington. Murrelet 55(2):19–22.

1596. Verner, J.

1975. Avian behavior and habitat management. *In* Proc., Symp. on Management of Forest Range Habitats for Nongame Birds [Tucson, Ariz., May 6–9, 1975]. p. 39–58. USDA For. Serv. Gen. Tech. Rep. WO–1. Washington, D.C.

1597. Verner, J., and M. F. Willson.

1969. Mating systems; sexual dimorphism and the role of male North American passerine birds in the nesting cycle. Ornithol. Monogr. 9:1–76.

1598. Vickers, E. W.

1895. Notes on nidification of the white-breasted nuthatch. Oologist 12:92–93.

1599. Vickers, E. W.

1914. The roll of the pileated woodpecker. Wilson Bull. 26:15-17.

1600. Von Haartman, L.

1957. Adaptation in hole-nesting birds. Evolution 11:339–347.

1601. Von Haartman, L.

1968. The evolution of resident versus migratory habits in birds: some considerations. Ornis Fenn. 45(1):1–7.

1602. Voous, K. H., Jr.

1947. On the history of the distribution of the genus *Dendrocopos*. Limosa 20:1–142.

1603. Wagener, W. W., and R. W. Davidson.
1954. Heartrots in living trees. Bot. Rev. 20(2):61–134.

1604. Walcheck, K. C.

1970. Nesting bird ecology of four plant communities in the Missouri River Breaks, Montana. Wilson Bull. 82(4): 370–382.

1605. Walcott, C. F.

1974. Changes in bird life in Cambridge, Massachusetts from 1860 to 1964. Auk 91:151-160.

1606. Walkinshaw, L. H.

1948. Brown creeper nesting in Calhoun County, Michigan. Jack-Pine Warbler 26:157–158.

1607. Walkinshaw, L. H.

1953. Life-history of the prothonotary warbler. Wilson Bull. 65(3):152–168.

1608. Walkinshaw, L. H.

1979. Forests and wildlife in southern Michigan in the past as compared to 1970–1978. *In* Management of North Central and Northeastern Forests for Nongame Birds, Workshop Proc. [Minneapolis, Minn., Jan. 23–25, 1979]. p. 263–268. USDA For. Serv. Gen. Tech. Rep. NC–51. North Cent. For. Exp. Stn., St. Paul, Minn.

1609. Walkinshaw, L. H., and W. A. Dyer. 1954. Brown-capped chickadee nesting in Michigan. Jack-Pine Warbler 32:107–109.

1610. Wall, M. L., and W. H. Whitcomb.

1964. The effect of bird predators on winter survival of the southwestern and European corn borers in Arkansas. J. Kans. Entomol. Soc. 37:187–192.

1611. Wallace, G. J.
1948. The barn owl in Michigan: its distribution,
natural history, and food habits. Mich. Agric. Exp.
Stn., Tech. Bull. 208, 61 p.

1612. Wallis, G. W., J. N. Godfrey, and H. A. Richmond.1974. Losses in fire-killed timber. 11 p. Can. For. Serv.,Pac. For. Res. Cent., Victoria. B.C.

1613. Walters, J. W.

1978. A guide to forest diseases of southwestern conifers. USDA For. Serv., State and Priv. For., Southwest Reg., For. Insect and Disease Manage. Publ. R3-78-9, 35 p. San Francisco, Calif.

1614. Warbach, O.1958. Bird populations in relation to changes in land use. J. Wildl. Manage. 22:23–28.

1615. Ward, B.
1930. Red-cockaded woodpeckers on corn. Bird-Lore
32(2):127–128.

1616. Waring, M. M.1912. Bluebirds vs. wrens. Bird-Lore 14:293-294.

1617. Warren, E. R. 1942. Some north-central Colorado bird notes. Condor 14(3):81–104.

1618. Wayne, A. T.1888. Nesting of the brown-headed nuthatch in South Carolina. Ornithol. and Ool. 13:21-23.

1619. Wayne, A. T.
1897. A remarkable nest of the tufted titmouse. Auk
14:98-99.

1620. Weaver, R. B.1921. The burning of dead and down trees as a practical protection measure. J. For. 19(5):506-511.

1621. Webb, R. J.
1903. Nest-building habits of the chickadee. Bird-Lore
5:63-64.

1622. Webb, W. L., D. F. Behrend, and B. Saisow.1977. Effects of logging on song bird populations in a northern hardwood forest. Wildl. Soc., Wildl. Monogr. 55, 36 p.

1623. Weber, A. J.1954. Weaklings among young purple martins. IowaBird Life 24:57.

1624. Weber, W. C.1975. Nest-sites of birds in residential areas of Vancouver, British Columbia. Can. Field-Nat. 89:457-460.

1625. Weber, W. C., and J. B. Theberge.1977. Breeding bird survey counts as related to habitat and date. Wilson Bull. 89(4):543-561.

1626. Weber, W. J.
1975. A touch of color. Nat. Wildl. 13(5):36-41.

1627. Webster, C. G., and F. B. McGilvrey.1966. Providing by brood habitat for wood ducks. *In* Wood Duck Management and Research: A Symposium. wildl. Manage. Inst. Washington, D.C.

1628. Webster, H. M. 1946. Notes from Idaho. Auk 63(3):452.

1629. Weier, R. W.
1966. Survey of wood duck nest sites on Mingo Wildlife Refuge. *In* Wood Duck Management and Research:
A Symposium. p. 91-108. Wildl. Manage. Inst., Washington, D.C.

1630. Weinzierl, H.
1957. Increasing the population desnity of hole-breeding song-birds in floodplain forests. Waldhygiene 2(4): 105-112.

1631. Weir, J. R., and E. E. Hubert.1918. A study of heart rot of western hemlock. U.S.Dep. Agric. Bull. 722, 39 p.

1632. Weise, C. M., and J. R. Meyer.1979. Juvenile dispersal and development of site-fidelity in the black-capped chickadee. Auk 96(1):40-45.

1633. Wellersdick, M., and R. Zalunardo.
1978. Characteristics of snags used by wildlife for nesting and feeding in the western Cascades, Oregon.
31 p. USDA For. Serv., Umpqua Natl. For., Pac. Northwest Reg., Portland, Oreg.

1634. Wells, R. H.
1946. Nest of the winter wren. Flicker 18:23-25.

1635. West, J. D., and J. M. Spiers.
1959. The 1956–57 invasion of three-toed woodpeckers.
Wilson Bull. 71(3):348–352.

1636. Western Conservation Journal.
1973. Oregon dedicates regreened Tillamook State
Forest. West. Conserv. J. 30(4):14–20.

1637. Western Conservation Journal.1976. Foresters spare dead snags for wildlife habitat.West. Conserv. J. 33(1):74.

1638. Wetherbee, K. B.1933. Some complicated bluebird family history. Bird-Banding 4:114–115.

1639. Wetherbee, K. B.1933. Three tree swallows feed a family of nestlings.Bird-Banding 4:116.

1640. Wetmore, A.1975. Song and garden birds of North America. 400 p.Natl. Geogr. Soc. Washington, D.C.

1641. Weydemeyer, W.
1931. A day with the birds of Glacier National Park.
Bird-Lore 33(3):169-175.

1642. Weydemeyer, W.
1934. Tree swallows at home in Montana. Bird-Lore
36:100–106.

1643. Weydemeyer, W.1935. Efficiency of nesting of the tree swallow. Condor 37:216–217.

1644. Weydemeyer, W.
1973. The spring migration pattern at Fortine, Montana. Condor 75(4):400-413.

1645. Weydemeyer, W.
1975. Half-century record of the breeding birds of the
Fortine area, Montana: nesting data and population
status. Condor 77:281-287.

1646. Weydemeyer, W., and D. Weydemeyer.1928. The woodpeckers of Lincoln County, Montana.Condor 30:339-346.

1647. Wheeler, S.
1979. New Hampshire kestrels. N.H. Audubon Annu.
p. 25-27.

1648. Whitcomb, B. L., R. F. Whitcomb, and D. Bystrak.
1977. Island biogeography and "habitat islands" of
eastern forest: III. Long-term turnover and effects of
selective logging on the avifauna of forest fragments.
Am. Birds. 31(1):17-23.

1649. Whitcomb, R. F.

1977. Island biogeography and "habitat islands" of eastern forest: I. Introduction. Am. Birds 31(1):3-5.

1650. Whitcomb, W. H.

1970. The tufted titmouse, Parus bicolor, and predator of the pecan nut casebearer, Acrobasis caryae. Proc. Tall Timbers Conf. on Ecol. Anim. Contr. by Habitat Manage. 2:305-308.

1651. Whitcomb, W. H.

1970. Integrated control possibilities in north Florida pecan trees. Proc. Southeast. Pecan Growers Assoc. 63:30-31.

1652. White, C. M., and D. G. Roseneau. 1970. Observations on food, nesting and winter populations of large North American falcons. Condor 72(1):113-115.

1653. White, S. C., and G. E. Wolfenden. 1973. Breeding of the eastern bluebird in central Florida. Bird-Banding 44(2):110-123.

1654. Whitmore, R. C.

1977. Habitat partitioning in a community of passerine birds. Wilson Bull. 89(2):253-265.

1655. Whittle, C. L. 1920. A colony of three-toed woodpeckers. Bird-Lore 22(5):351-352.

1656. Whittle, C. L. 1926. Notes on the nesting habits of tree swallows. Auk 43(2):247-248.

1657. Whittle, H. G.

1926. Recent history of a pair of white-breasted nuthatches, Nos. 117455 male and 117456 female. Bull. Northeast. Bird-band Assoc. 2:72-74.

1658. Wibeck, E.

1944. The forest and the birds. Svenska SkogbForen. Tidskr 42(1):34-45.

1659. Wickman, B. E.

1958. Mortality of white fir following defoliation by the Douglas-fir tussock moth in California, USDA For. Serv. Res. Note 137, 4 p. Calif. For. and Range Exp. Stn., Berkeley, Calif.

1660. Wickman, B. E.

1965. Black-backed three-toed woodpecker Picoides arcticus, predation on Monochamus oregonensis. Pan.-Pac. Entomol. 41:162-164.

1661. Wickman, B. E.

1978. Tree mortality and top-kill related to defoliation by the Douglas-fir tussock moth in the Blue Mountains outbreak. USDA For. Serv. Res. Pap. PNW-233, 47 p. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

1662. Wickman, B. E., and R. F. Scharpf. 1972. Decay in white fir top-killed by Douglas-fir tussock moth. USDA For. Serv. Res. Pap. PNW-133, 9 p. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

1663. Wiens, J. A.

1978. Non-game bird communities in northwestern coniferous forests. In The Workshop on Nongame Bird Habitat Management in Coniferous Forests of the Western United States, Proc. [Portland, Oreg., Feb. 7-9, 1977]. p. 19-31. USDA For. Serv. Gen. Tech. Rep. PNW64. Pac. Northwest For. and Range Exp. Stn., Portland, Oreg.

1664. Wiens, J. A.

1975. Avian communities, energetics and functions in coniferous forest habitats. In Symposium on Management of Forest and Range Habitats for Nongame Birds, Proc. [Tucson, Ariz., May 6-9, 1975]. p. 226-265. USDA For. Serv. Gen. Tech. Rep. WO-1. Washington, D.C.

1665. Wiens, J. A., and R. A. Nussbaum. 1975. Model estimation of energy flow in northwestern coniferous forest bird communities. Ecology 56:547-561.

1666. Wiens, J. A., and M. I. Dyer.

1975. Rangeland avifaunas: their composition, energetics, and role in the ecosystem. In Symposium on Management of Forest and Range Habitats for Nongame Birds, Proc. [Tucson, Ariz., May 6-9, 1975]. p. 146-182. USDA For. Serv. Gen. Tech. Rep. WO-1. Washington, D.C.

1667. Wight, A. M.

1969. Non-game wildlife and forest management. In Wildlife and Forest Management in the Pacific Northwest, Proc. Symp. [Corvallis, Oreg., Sept. 11-12, 1973]. p. 27-38. Oreg. State Sch. For., Corvallis, Oreg.

1668. Wilber, S. R.

1976. New seasonal and distributional records of Idaho birds. Murrelet 57:32-34. 1669. Willard, F. C.

1912. Nesting of the Rocky Mountain Nuthatch. Condor 14:213-215.

1670. Willard, F. C.

1912. A week afield in southern Arizona. Condor 14(2):53-63.

1671. Williams, J. 1919. Purple martins at St. Marks, Fla. Wilson Bull. 31:71-83.

1672. Williams, J. B.

1975. Habitat utilization by four species of woodpeckers in central Illinois woodland. Am. Midl. Nat. 93(2):354-367.

1673. Williams, R. W.

1924. A set of three eggs of the turkey vulture. Auk 41(3):476-477.

1674. Williamson, K.

1970. Birds and modern forestry. Q. J. For. 64(4): 346-355.

1675. Williamson, K.

1972. The conservation of birdlife in the new coniferous forests. Forestry (Soc. For. G.B.) 45:87-100.

1676. Willoughby, E. J., and T. J. Cade.

1964. Breeding behavior of the American kestrel (sparrow hawk). Living Bird 3:75–96.

1979. Where has all the bluebirds gone? Mo. Conserv. 240(3):12-14.

1678. Wilson, M. F.

1974. Avian community organization and habitat structure. Ecology 55:1017-1029.

1679. Wilson, L. F.

1977. A guide to insect injury of conifers in the Lake States. U.S. Dep. Agric., Agric. Handb. 501. Washington, D.C.

1680. Wilson, L. F., and H. A. Huber.1976. A bird and bee problem in house siding. USDAFor. Serv. Res. Note NC-209, 2 p. North Cent. For.Exp. Stn., St. Paul, Minn.

1681. Winkler, H.

1979. Foraging ecology of Strickland's woodpecker in Arizona. Wilson Bull. 91(2):244–254.

1682. Winternitz, B. L.1973. Ecological patterns in a montane breeding bird community. Ph.D. diss. Univ. Colo., Boulder. 135 p.

1683. Woehr, J. R.1979. Preliminary analysis of bird populations in the Flat Rock Jack-Pine Barrens. Trans. Northeast Sect. Wildl. Soc. 36:14-25.

1684. Wolda, G.

1917. Vegelculture. Dep. van Landbouw, Nijverheid en Handel. Directie van den landbouw. p. 1–27.

1685. Wood, D. A., and J. C. Lewis.1979. Status of the red-cockaded woodpecker in Oklahoma. Proc. Annu. Conf. Southeast. Assoc. Fish Wildl. Agencies 31:276-282.

1686. Wood, G. W., and L. J. Niles.
1978. Effects of management practices on nongame bird habitat in longleaf-slash pine forests. *In* Management of Southern Forests for Nongame Birds, Workshop Proc. [Atlanta, Ga., Jan. 24–26, 1978]. p. 40–49. USDA For. Serv. Gen. Tech. Rep. SE–14. Southeast. For. Exp. Stn., Asheville, N.C.

1687. Woodward, P., and J. C. Woodward.1979. Brown-headed cowbird parasitism on eastern bluebird. Wilson Bull. 91(2):321-322.

1688. Woolfenden, G. E., and S. A. Rohwer.1969. Breeding birds in a Florida suburb. Fla. StateMus. Bull. 13, 83 p.

1689. Woolfenden, G. E., and S. A. Rohwer.
1969. Bird populations in the suburbs and two woodland habitats in Pinellas County, Florida. Fla. State Board of Health Monogr. 12:101–117.

1690. Wray, D. L. 1965. Ground nest of a yellow-shafted flicker. Chat 29(4):111-112.

1691. Wright, A. H.1912. Early records of the Carolina paraquet. Auk29(3):343-363.

1693. Wright, G. M.1933. Men and birds in joint occupation of National Parks. Condor 35(6):213-218.

1694. Wright, G. M., J. S. Dixon, and B. H. Thompson.1933. Fauna of the National Parks of the United States.U.S. Dep. Interior, Natl. Park Serv., Contrib. of Wildl. Serv. Fauna Ser. 1, 157 p.

1695. Yapp, W. B.1962. Birds and woods. 308 p. Oxford Univ. Press,London.

1696. Yeager, L. E.1955. Two woodpecker populations in relation to environmental change. Condor 57(3):148-153.

1697. Yeaton, R. I.
1974. An ecological analysis of chaparral and pine forest bird communities on Santa Cruz Island and mainland California. Ecology 55:959-973.

1698. Yocom, C. F., and I. G. Yocom 1946. Summer birds observed at Conkling Park, Kootenai County, Idaho 1943. Murrelet 27(1):10-12.

1699. Youngworth, W.

1946. Carolina wren and orchard oriole in Woodbury County. Iowa Bird Life 16:65.

1700. Yunick, R. P.
1971. A study of a tree swallow colony over water.
Kingbird 21(2):47–56.

1701. Zammuto, R. M., and E. C. Franks.
1979. Trapping flocks of chimney swifts in Illinois.
Bird-Banding 50(3):201-209.

1702. Zarn, M.
1974. Habitat management series for unique or endangered species. Report 10. Spotted owl (*Strix occidentalis*). U.S. Dep. Interior, Bur. Land Manage. Tech. Note T-N-242, 22 p.

1703. Zeedyk, W. D., and K. E. Evans.
1975. Silvicultural options and habitat values in deciduous forest. *In* Symposium on Management of Forest and Range habitats for Nongame Birds, Proc. [Tucson, Ariz., May 6-9, 1975]. p. 115-127. USDA For. Serv. Gen. Tech. Rep. WO-1. Washington, D. C.

1704. Zeleny, L.
1968. Bluebird nesting box temperatures. Atl. Nat. 23(4):214-218.

1705. Zeleny, L.
1970. Bluebird nesting box project—1969. Atl. Nat.
25(1):33-38.

1706. Zeleny, L.
1972. Can we save the bluebird? Living Wilderness
36(119):24-31.

1707. Zeleny, L.
1973. Help the bluebird. Natl. Parks and Conserv.
4:13-17.

1708. Zeleny, L. 1976. The bluebird. Indiana Press, Bloomington.

1709. Zeleny, L. 1977.

Nesting box programs for bluebirds and other passerines. *In* Endangered Birds: Management Techniques for Preserving Threatened Species. p. 55-60. Univ. Wis. Press, Madison.

1710. Zeleny, L.1978. Befriend a bluebird. Exxon USA 17(3):20-24.1711. Ziller, W. G., and D. Stirling.

1961. Sapsucker damage in coastal British Columbia. For. Chron. 37(4):331–334.

1712. Zipko, S. J.1979. Effects of dump nests and habitat on reproductive ecology of wood ducks, Aix sponsa (Linnaeus).Ph.D. diss. Rutgers Univ., New Brunswick, N.J. 186 p.

1713. Zumbo, J.
1977. Impacts of the wood-for-energy push. Am. For.
84(10):38-41, 46-47, 49-50.

FOREST SNAG INDEX

Snags-General

7, 8, 27, 29, 42, 47, 59, 61, 62, 82, 83, 132, 163, 192, 201, 202, 219, 234, 235, 281, 303, 318, 339, 352, 406, 408, 440, 449, 464, 498, 499, 500, 532, 536, 600, 606, 698, 700, 721, 736, 765, 767, 840, 842, 852, 865, 866, 867, 868, 870, 879, 890, 932, 933, 942, 943, 953, 954, 962, 974, 993, 1000, 1005, 1006, 1018, 1019, 1020, 1021, 1022, 1063, 1064, 1076, 1099, 1109, 1110, 1112, 1173, 1199, 1283, 1313, 1325, 1351, 1352, 1355, 1463, 1505, 1511, 1514, 1520, 1567, 1568, 1569, 1570, 1572, 1573, 1574, 1576, 1578, 1589, 1620, 1633, 1637, 1667, 1685, 1703, 1713

Snag Management and Bird Use

42, 61, 201, 219, 281, 339, 440, 498, 499, 500, 536, 698, 700, 721, 765, 1019, 1020, 1064, 1112, 1173, 1199, 1283, 1325, 1351, 1352, 1355, 1514, 1520, 1573, 1576, 1633, 1667, 1694, 1703

Snag-Fire Control Relationships

29, 59, 82, 83, 192, 234, 235, 449, 464, 532, 600, 840, 842, 866, 867, 868, 870, 879, 932, 933, 942, 943, 953, 1000, 1005, 1006, 1099, 1109, 1505, 1567, 1568, 1572, 1574, 1620

Snag Removal and Use by Man

7, 8, 27, 29, 47, 62, 132, 163, 303, 352, 406, 600, 606, 736, 767, 852, 865, 890, 914, 993, 1019, 1022, 1076, 1110, 1173, 1352, 1520, 1568, 1569, 1570, 1578, 1589, 1620, 1637, 1667, 1703, 1713

Snag Longevity

318, 408, 840, 842, 954, 112, 1520

FIRE, INSECT, DISEASE, AND DECAY INDEX

Fire Effects on Cavity-Nesting Birds

34, 53, 62, 82, 83, 84, 106, 137, 148, 149, 153, 154, 189, 192, 226, 227, 237, 259, 314, 333, 344, 404, 411, 433, 436, 444, 566, 573, 633, 634, 664, 718, 766, 848, 869, 871, 874, 875, 885, 932, 933, 944, 955, 981, 1018, 1057, 1092, 1125, 1141, 1261, 1299, 1300, 1450, 1462, 1480, 1481, 1505, 1506, 1509, 1510, 1511, 1520, 1663, 1685

Insect-Cavity-nesting Bird Relationships

4, 25, 26, 58, 63, 64, 65, 98, 105, 133, 196, 226, 227, 254, 293, 301, 304, 316, 317, 386, 390, 391, 396, 407, 473, 493, 497, 514, 549, 583, 584, 614, 629, 630, 637, 638, 693, 702, 739, 740, 746, 754, 761, 775, 856, 858, 872, 873, 967, 968, 969, 997, 998, 1008, 1014, 1019, 1051, 1066, 1079, 1116, 1171, 1177, 1330, 1344, 1365, 1377, 1379, 1416, 1417, 1441, 1442, 1478, 1487, 1511, 1513, 1520, 1524, 1537, 1538, 1554, 1555, 1579, 1610, 1650, 1659, 1660, 1661, 1662, 1680, 1703

Nest Tree Disease and Decay

5, 6, 7, 8, 30, 37, 42, 58, 76, 84, 85, 88, 96, 120, 169, 170, 255, 282, 288, 303, 324, 418, 435, 489, 521, 522, 523, 541, 565, 566,

585, 586, 594, 633, 634, 635, 636, 651, 652, 669, 688, 689, 702, 706, 711, 725, 814, 839, 840, 841, 842, 852, 885, 914, 932, 933, 973, 1019, 1022, 1064, 1125, 1141, 1181, 1279, 1313, 1373, 1374, 1375, 1434, 1476, 1520, 1541, 1542, 1554, 1603, 1613, 1631, 1662, 1703

CAVITY-NESTING BIRD INDEX

General Information

HABITAT MANAGEMENT

3, 21, 98, 135, 136, 177, 188, 196, 216, 219, 220, 240, 247, 258, 267, 299, 313, 314, 321, 333, 340, 341, 342, 343, 344, 399, 400, 439, 464, 468, 483, 486, 498, 499, 500, 548, 562, 569, 577, 578, 637, 638, 663, 691, 698, 700, 725, 742, 745, 785, 786, 893, 918, 964, 966, 976, 992, 1009, 1025, 1027, 1046, 1068, 1075, 1082, 1112, 1126, 1157, 1188, 1199, 1201, 1287, 1314, 1325, 1340, 1346, 1351, 1352, 1355, 1380, 1394, 1396, 1399, 1403, 1420, 1465, 1475, 1480, 1481, 1499, 1514, 1520, 1521, 1525, 1564, 1571, 1575, 1577, 1585, 1625, 1645, 1649, 1663, 1674, 1675, 1692, 1694, 1703

LAND USE IMPACTS ON HABITAT

3, 9, 21, 22, 35, 48, 49, 53, 80, 132, 220, 237, 274, 282, 285, 286, 289, 303, 304, 313, 333, 344, 399, 400, 438, 439, 441, 448, 456, 464, 483, 486, 488, 509, 573, 577, 580, 613, 628, 639, 666, 713, 743, 784, 876, 886, 893, 964, 976, 980, 989, 992, 1019, 1024, 1025, 1027, 1050, 1051, 1057, 1075, 1082, 1092, 1137, 1201, 1219, 1253, 1254, 1265, 1276, 1283, 1331, 1394, 1462, 1463, 1475, 1481, 1485, 1495, 1497, 1508, 1514, 1520, 1521, 1524, 1608, 1614, 1622, 1625, 1636, 1637, 1648, 1663, 1666, 1686, 1703

HABITAT

2, 61, 62, 76, 99, 148, 164, 220, 238, 375, 411, 470, 511, 570, 581, 604, 648, 666, 726, 743, 866, 886, 893, 962, 965, 1046, 1050, 1064, 1126, 1155, 1139, 1214, 1233, 1273, 1331, 1398, 1400, 1481, 1520, 1565, 1585, 1625, 1658, 1695

FORAGING BEHAVIOR

98, 188, 216, 219, 247, 340, 386, 390, 465, 629, 630, 638, 838, 962, 1419, 1518, 1520, 1537, 1538, 1555, 1556, 1564, 1565, 1658, 1665, 1695

BREEDING, NESTING

217, 218, 220, 225, 510, 537, 572, 640, 667, 694, 732, 880, 908, 1035, 1060, 1081, 1103, 1131, 1248, 1269, 1314, 1376, 1486, 1520, 1597, 1694

NEST AND ROOST TREES

31, 61, 164, 171, 219, 281, 282, 340, 430, 439, 508, 604, 776, 962, 991, 1035, 1085, 1248, 1273, 1294, 1313, 1351, 1404, 1514, 1520, 1612, 1637

NESTS

171, 176, 196, 225, 227, 266, 323, 446, 459, 508, 531, 593, 605, 617, 640, 694, 966, 1035, 1060, 1081, 1120, 1178, 1248, 1269, 1325, 1376, 1469, 1486, 1586

BIOLOGY, ECOLOGY, LIFE HISTORY

31, 108, 109, 111, 112, 113, 114, 115, 116, 117, 118, 476, 778, 887, 889, 1085, 1126, 1202, 1238, 1256, 1277, 1303, 1326, 1327, 1520, 1600, 1665, 1682

POPULATION, DENSITIES, DISTRIBUTION, DIVERSITY

32, 62, 163, 215, 238, 291, 335, 374, 375, 378, 412, 429, 469, 490, 501, 558, 595, 628, 663, 747, 748, 774, 775, 849, 882, 887, 936, 956, 957, 958, 988, 1046, 1126, 1139, 1155, 1164, 1212, 1213, 1233, 1277, 1285, 1296, 1304, 1314, 1395, 1396, 1399, 1408, 1436, 1504, 1520, 1565, 1582, 1583, 1601, 1608, 1630, 1645, 1666, 1683

URBAN-AREA HABITAT

339, 345, 346, 412, 448, 513, 950, 1522, 1523, 1605, 1624, 1625, 1688, 1689

RELATION TO AGRICULTURE

89, 92, 372, 407, 409, 463, 473, 583, 897, 1347

DAMAGE

407, 448, 465, 637, 897

RELATIONS WITH OTHER FAUNA

12, 15, 57, 87, 96, 1051

STUDY METHODS

25, 26, 121, 152, 364, 365, 366, 394, 413, 423, 485, 494, 568, 576, 654, 716, 774, 941, 1100, 1178, 1210, 1282, 1307, 1316, 1427, 1563, 1625

LITERATURE REVIEWS AND BIBLIOGRAPHIES

261, 320, 701, 1184, 1185, 1186, 1187, 1266, 1547

CHECKLISTS

23, 24, 44, 45, 46, 125, 470, 1004, 1162, 1319, 1321, 1398, 1520, 1580, 1581

EXTINCT SPECIES

221, 224, 359, 695, 945, 1032, 1033, 1690

Species Specific Information

BLACK-BELLIED WHISTLING DUCK, DENDROCYGNA AUTUMNALIS

SUMMARY

102, 109, 157, 158, 159, 294, 554, 617, 734, 735, 1012, 1013, 1037, 1196, 1208, 1284, 1324, 1354

HABITAT

743, 1037, 1208, 1284, 1354

FORAGING BEHAVIOR

158, 294, 734, 1324, 1354

BREEDING, NESTING

157, 617, 734, 735, 1012, 1013, 1037, 1196, 1354

NEST AND ROOST TREES

1208

NEST BOXES AND HOUSES

157, 1012

BIOLOGY, ECOLOGY, LIFE HISTORY 102, 109, 159, 734

DISTRIBUTION, POPULATIONS DENSITY, STATUS 554, 734, 1196, 1284 IDENTIFICATION, TAXONOMY 734, 1196, 1208, 1284

WOOD DUCK, AIX SPONSA

SUMMARY

9, 20, 39, 48, 57, 59, 71, 72, 73, 100, 101, 102, 103, 109, 126, 165, 181, 201, 212, 213, 262, 281, 284, 294, 306, 373, 385, 388, 389, 440, 542, 551, 554, 580, 594, 597, 605, 617, 620, 622, 631, 632, 643, 644, 695, 725, 731, 734, 780, 928, 946, 951, 985, 986, 1028, 1043, 1074, 1118, 1121, 1166, 1176, 1179, 1180, 1196, 1203, 1206, 1208, 1252, 1284, 1289, 1354, 1470, 1483, 1484, 1497, 1520, 1546, 1565, 1584, 1604, 1626, 1627, 1629, 1667, 1668, 1698, 1712.

HABITAT MANAGEMENT

48, 201, 281, 373, 440, 597, 695, 1028, 1520, 1546, 1604, 1667

HABITAT

9, 48, 71, 181, 201, 212, 373, 551, 579, 605, 632, 695, 725, 731, 734, 946, 1028, 1043, 1074, 1176, 1179, 1180, 1203, 1208, 1284, 1289, 1354, 1470, 1520, 1565, 1604, 1698, 1712

FORAGING BEHAVIOR

294, 389, 440, 695, 734, 985, 1176, 1354, 1520

BREEDING, NESTING

39, 57, 59, 103, 165, 212, 262, 385, 388, 580, 594, 605, 617, 620, 622, 632, 644, 695, 725, 731, 734, 928, 1074, 1118, 1121, 1176, 1180, 1196, 1252, 1289, 1354, 1483, 1484, 1520, 1546, 1565, 1627, 1629, 1712

NEST AND ROOST TREES

59, 201, 281, 388, 440, 580, 594, 725, 1074, 1118, 1180, 1208, 1289, 1520

NEST BOXES AND HOUSES

103, 262, 281, 388, 440, 542, 644, 695, 725, 780, 1074, 1118, 1121, 1483, 1484, 1546, 1584, 1604, 1712

BIOLOGY, ECOLOGY, LIFE HISTORY

71, 72, 73, 102, 109, 213, 551, 631, 643, 734, 928, 946, 951, 986, 1176, 1520, 1604, 1626

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 213, 306, 551, 554, 620, 731, 734, 1043, 1179, 1284, 1497, 1668

IDENTIFICATION, TAXONOMY 695, 734, 1196, 1206, 1208, 1284, 1289

COMMON GOLDENEYE, BUCEPHALA CLANGULA

SUMMARY

39, 102, 109, 165, 201, 212, 243, 294, 297, 422, 440, 441, 518, 527, 528, 529, 551, 554, 617, 695, 731, 734, 737, 766, 928, 945, 985, 1019, 1023, 1167, 1176, 1180, 1196, 1206, 1208, 1252, 1284, 1289, 1333, 1354, 1402, 1464, 1518, 1565, 1667

HABITAT MANAGEMENT

201, 440, 441, 1023, 1518, 1667

HABITAT

201, 212, 243, 441, 527, 528, 551, 695, 731, 734, 945, 1176, 1180, 1208, 1284, 1289, 1354, 1402, 1464, 1518, 1565

FORAGING BEHAVIOR

294, 422, 440, 695, 734, 985, 1167, 1176, 1354, 1518

BREEDING, NESTING

39, 165, 212, 518, 527, 529, 617, 695, 731, 734, 737, 928, 1019, 1176, 1196, 1252, 1289, 1354, 1518, 1565

NEST AND ROOST TREES

201, 440, 529, 766, 1019, 1023, 1180, 1208, 1289, 1518

NEST BOXES AND HOUSES

440, 695, 737

BIOLOGY, ECOLOGY, LIFE HISTORY

102, 109, 551, 734, 928, 945, 1518

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 297, 551, 554, 731, 734, 1134, 1196, 1284, 1402

IDENTIFICATION, TAXONOMY

695, 734, 1196, 1206, 1208, 1284, 1289

BARROW'S GOLDENEYE, BUCEPHALA ISLANDICA

SUMMARY

39, 102, 109, 201, 212, 294, 425, 551, 554, 601, 617, 731, 733, 734, 766, 985, 1019, 1023, 1111, 1176, 1180, 1196, 1206, 1208, 1284, 1289, 1354, 1520, 1565, 1667

HABITAT MANAGEMENT

201, 1019, 1023, 1520, 1667

HABITAT

201, 212, 551, 731, 734, 1111, 1176, 1180, 1208, 1284, 1289, 1354, 1520, 1565

FORAGING BEHAVIOR

294, 734, 985, 1176, 1180, 1354, 1520

BREEDING, NESTING

39, 212, 425, 617, 731, 733, 734, 1176, 1196, 1289, 1354, 1520, 1565

NEST AND ROOST TREES

201, 733, 766, 1019, 1023, 1180, 1208, 1289, 1520

BIOLOGY, ECOLOGY, LIFE HISTORY

102, 109, 551, 734, 1520

RELATIONS WITH OTHER FAUNA

425

DISTRIBUTION, POPULATION DENSITY, STATUS

212, 551, 554, 601, 731, 734, 1196, 1284

IDENTIFICATION, TAXONOMY

734, 1196, 1206, 1208, 1284, 1289

BUFFLEHEAD, BUCEPHALA ALBEOLA

SUMMARY

39, 102, 109, 201, 212, 294, 425, 426, 428, 430, 441, 447, 551, 554, 617, 695, 731, 733, 734, 766, 895, 921, 928, 945, 985, 1094, 1128, 1166, 1176, 1196, 1206, 1208, 1284, 1289, 1354, 1402, 1443, 1520, 1565, 1667

HABITAT MANAGEMENT

201, 441, 1520, 1667

HABITAT

201, 212, 441, 551, 695, 731, 734, 921, 945, 1094, 1128, 1166, 1176, 1208, 1284, 1289, 1354, 1402, 1443, 1520, 1565

FORAGING BEHAVIOR

294, 695, 734, 985, 1176, 1354, 1520

BREEDING, NESTING

39, 212, 425, 426, 428, 447, 617, 695, 731, 733, 766, 895, 928, 1176, 1196, 1289, 1354, 1520, 1565

NEST AND ROOST TREES

201, 430, 733, 766, 1208, 1289, 1520

NEST BOXES AND HOUSES

695

BIOLOGY, ECOLOGY, LIFE HISTORY

102, 109, 428, 551, 734, 928, 945, 1520

RELATIONS WITH OTHER FAUNA

425, 426

DISTRIBUTION, POPULATIONS DENSITY, STATUS 212, 551, 554, 617, 733, 895, 921, 1094, 1196, 1284, 1402

IDENTIFICATION, TAXONOMY

734, 1196, 1206, 1208, 1284, 1289

HARLEQUIN DUCK, HISTRIONICUS HISTRIONICUS

SUMMARY

102, 109, 201, 212, 294, 509, 551, 554, 619, 695, 731, 734, 1176, 1180, 1196, 1206, 1208, 1238, 1284, 1354, 1520

HABITAT MANAGEMENT

201, 1520

HABITAT

201, 212, 551, 695, 731, 734, 1176, 1180, 1208, 1284, 1354, 1520

FORAGING BEHAVIOR

294, 695, 734, 1176, 1238, 1354, 1520

BREEDING, NESTING

212, 509, 619, 695, 731, 734, 1176, 1196, 1354, 1520

NEST AND ROOST TREES

201, 1208, 1520

NEST BOXES AND HOUSES

695

BIOLOGY, ECOLOGY, LIFE HISTORY

102, 109, 551, 734, 1520

DISTRIBUTION, POPULATION DENSITY, STATUS

212, 551, 554, 731, 734, 1196, 1284

IDENTIFICATION, TAXONOMY

695, 734, 1196, 1206, 1208, 1284

HOODED MERGANSER, LOPHODYTES CUCULLATUS

SUMMARY

39, 102, 109, 165, 201, 212, 294, 440, 441, 468, 551, 554, 605, 617, 695, 731, 733, 734, 920, 928, 945, 1098, 1176, 1196, 1206, 1208, 1284, 1289, 1317, 1354, 1402, 1520, 1565, 1667

HABITAT MANAGEMENT

201, 440, 441, 1520, 1667

HABITAT

201, 212, 441, 551, 605, 695, 731, 733, 734, 920, 945, 1176, 1208, 1284, 1289, 1354, 1402, 1520, 1565

FORAGING BEHAVIOR

294, 440, 695, 734, 1176, 1354, 1520

BREEDING, NESTING

 $39,\,165,\,212,\,605,\,617,\,695,\,731,\,734,\,928,\,1098,\,1176,\,1196,$

1289, 1354, 1520, 1565

NEST AND ROOST TREES

201, 440, 1208, 1289, 1520

NEST BOXES AND HOUSES

440, 695

BIOLOGY, ECOLOGY, LIFE HISTORY

102, 109, 551, 928, 945, 1317, 1520

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 468, 551, 554, 731, 734, 920, 1196, 1284, 1402

IDENTIFICATION, TAXONOMY

695, 734, 1196, 1206, 1208, 1284, 1289

COMMON MERGANSER (GOOSANDER), MERGUS MERGANSER

SUMMARY

102, 109, 201, 212, 294, 400, 440, 441, 452, 477, 478, 551, 554, 605, 617, 695, 731, 733, 734, 920, 928, 945, 1176, 1180, 1196, 1206, 1208, 1284, 1289, 1328, 1354, 1402, 1443, 1520, 1565, 1594, 1617, 1667

HABITAT MANAGEMENT

201, 400, 452, 441, 1520, 1667

HABITAT

201, 212, 400, 441, 551, 605, 695, 731, 734, 920, 945, 1176, 1180, 1208, 1284, 1289, 1354, 1402, 1443, 1520, 1565, 1594, 1617

FORAGING BEHAVIOR

294, 440, 695, 734, 1176, 1328, 1354, 1520

BREEDING, NESTING

201, 212, 477, 605, 617, 695, 731, 733, 734, 928, 1176, 1196, 1289, 1354, 1520, 1565

NEST AND ROOST TREES

440, 1208, 1289, 1520

NEST BOXES AND HOUSES

440, 695

BIOLOGY, ECOLOGY, LIFE HISTORY

102, 109, 551, 928, 945, 1520

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 452, 478, 551, 554, 731, 734, 920, 1196, 1284, 1402, 1594

IDENTIFICATION, TAXONOMY 695, 734, 1196, 1206, 1208, 1284, 1289

TURKEY VULTURE, CATHARTES AURA

SUMMARY

22, 28, 49, 59, 97, 111, 123, 153, 195, 212, 313, 376, 400, 402, 440, 461, 530, 551, 598, 605, 617, 672, 684, 695, 722, 731, 753, 770, 928, 945, 959, 991, 1001, 1038, 1043, 1094, 1128, 1129, 1136, 1166, 1167, 1193, 1196, 1206, 1208, 1258, 1267, 1284, 1289, 1333, 1354, 1367, 1397, 1421, 1473, 1504, 1508, 1515, 1520, 1543, 1565, 1617, 1647, 1670, 1673

HABITAT MANAGEMENT

22, 49, 313, 400, 402, 440, 598, 959, 1397, 1508, 1515, 1520, 1647

HABITAT

123, 153, 212, 376, 400, 551, 598, 605, 684, 695, 731, 945, 1038, 1043, 1094, 1128, 1136, 1166, 1208, 1258, 1284, 1289, 1354, 1397, 1421, 1504, 1508, 1515, 1520, 1565, 1617, 1670

FORAGING BEHAVIOR

153, 440, 461, 598, 695, 1001, 1167, 1258, 1354, 1473, 1520 BREEDING, NESTING

59, 111, 153, 212, 530, 598, 605, 617, 672, 695, 722, 731, 770, 928, 1129, 1193, 1196, 1289, 1354, 1473, 1520, 1565, 1673

NEST AND ROOST TREES

59, 440, 598, 991, 1208, 1289, 1520

NEST BOXES AND HOUSES 440, 695

BIOLOGY, ECOLOGY, LIFE HISTORY

28, 97, 111, 461, 530, 551, 722, 770, 928, 945, 1136, 1267, 1367, 1515, 1520

DISTRIBUTION, POPULATION DENSITY, STATUS 49, 195, 212, 551, 684, 731, 753, 1001, 1043, 1094, 1196, 1258, 1284, 1333, 1421, 1543

IDENTIFICATION, TAXONOMY

695, 1001, 1196, 1206, 1208, 1284, 1289

BLACK VULTURE, CORAGYPS ATRATUS

SUMMARY

28, 59, 111, 195, 402, 461, 598, 605, 673, 695, 778, 891, 945, 1001, 1129, 1196, 1206, 1208, 1284, 1354, 1396, 1471, 1565

HABITAT MANAGEMENT

402, 598, 1396

HABITAT

598, 605, 695, 945, 1208, 1284, 1354, 1396, 1565

FORAGING BEHAVIOR

461, 598, 695, 1001, 1354

BREEDING, NESTING

59, 111, 598, 605, 673, 695, 891, 1129, 1196, 1354, 1471, 1565

NEST AND ROOST TREES

59, 598, 891, 1208

NEST BOXES AND HOUSES

695

BIOLOGY, ECOLOGY, LIFE HISTORY 28, 111

DISTRIBUTION, POPULATION DENSITY, STATUS

195, 778, 1001, 1196, 1284 IDENTIFICATION, TAXONOMY

695, 1001, 1196, 1206, 1208, 1284

AMERICAN KESTREL (SPARROW HAWK), FALCO SPARVERIUS

SUMMARY

49, 70, 97, 112, 123, 149, 196, 201, 209, 212, 281, 300, 302, 376, 400, 402, 440, 441, 442, 454, 457, 463, 486, 492, 508, 551, 589, 598, 605, 617, 621, 684, 695, 731, 738, 920, 928, 944, 945, 981, 991, 1000, 1019, 1022, 1023, 1038, 1039, 1043, 1072, 1094, 1104, 1105, 1107, 1111, 1128, 1129, 1135, 1146, 1167, 1180, 1196, 1206, 1208, 1237, 1258, 1267, 1275, 1284, 1289, 1295, 1326, 1333, 1351, 1353, 1354, 1397, 1402, 1409, 1421, 1423, 1437, 1443, 1457, 1467, 1504, 1508, 1520, 1536, 1565, 1594, 1596, 1617, 1647, 1667, 1670, 1676, 1686, 1698

HABITAT MANAGEMENT

49, 201, 281, 400, 402, 440, 486, 598, 1019, 1022, 1023, 1353, 1397, 1508, 1520, 1596, 1667, 1686

HABITAT

123, 149, 201, 212, 376, 400, 442, 463, 486, 492, 508, 598, 605, 684, 695, 731, 738, 920, 944, 945, 981, 1038, 1043, 1072, 1094, 1111, 1128, 1135, 1167, 1180, 1208, 1258, 1284, 1289, 1326, 1354, 1397

FORAGING BEHAVIOR

149, 196, 209, 302, 440, 457, 492, 598, 621, 695, 944, 1000, 1039, 1104, 1105, 1107, 1146, 1167, 1258, 1326, 1353, 1354, 1423, 1437, 1467, 1520

BREEDING, NESTING

112, 201, 212, 300, 302, 454, 492, 598, 605, 617, 695, 731, 928, 1022, 1129, 1196, 1237, 1275, 1289, 1353, 1354, 1409, 1423, 1437, 1457, 1520, 1565, 1596, 1676

NEST AND ROOST TREES

281, 440, 508, 991, 1019, 1022, 1023, 1208, 1289, 1351, 1520, 1686

NEST BOXES AND HOUSES

281, 440, 508, 589, 695

BIOLOGY, ECOLOGY, LIFE HISTORY 70, 97, 112, 300, 508, 928, 945, 1072, 1135, 1267, 1295, 1326, 1423, 1647

TERRITORY

1596

DISTRIBUTION, POPULATION DENSITY, STATUS 49, 212, 441, 442, 508, 684, 731, 920, 944, 1000, 1043, 1094, 1196, 1258, 1284, 1333, 1402, 1421, 1536, 1594

IDENTIFICATION, TAXONOMY

695, 1000, 1196, 1206, 1208, 1284, 1289

BARN OWL, TYTO ALBA

SUMMARY

38, 112, 201, 210, 212, 223, 260, 261, 302, 384, 400, 402, 437, 440, 454, 463, 598, 605, 617, 731, 757, 778, 928, 945, 983, 990, 1167, 1170, 1196, 1206, 1208, 1210, 1237, 1270, 1284, 1354, 1362, 1421, 1422, 1424, 1425, 1445, 1520, 1565, 1611

HABITAT MANAGEMENT 201, 400, 402, 440, 598, 1520

HARITAT

201, 212, 400, 598, 605, 731, 945, 1167, 1208, 1284, 1354, 1424, 1520, 1565

FORAGING BEHAVIOR

210, 260, 302, 384, 437, 440, 463, 598, 983, 990, 1166, 1170, 1270, 1354, 1362, 1422, 1424, 1425, 1520, 1611

BREEDING, NESTING

201, 212, 302, 454, 598, 605, 617, 731, 928, 1170, 1196, 1237, 1270, 1354, 1362, 1421, 1424, 1425, 1520, 1565

NEST AND ROOST TREES

440, 1208, 1520

NEST BOXES AND HOUSES

440, 598

BIOLOGY, ECOLOGY, LIFE HISTORY 38, 112, 223, 757, 778, 928, 945, 1424, 1425, 1445, 1520, 1611

RELATIONS WITH OTHER FAUNA 454

DISTRIBUTION, POPULATIONS DENSITY, STATUS 212, 261, 302, 731, 778, 1196, 1284, 1425, 1611 IDENTIFICATION, TAXONOMY

1196, 1206, 1208, 1284

SCREECH OWL, OTUS ASIO

SUMMARY

13, 38, 39, 57, 112, 201, 212, 223, 261, 273, 281, 302, 402, 440, 463, 508, 524, 551, 588, 598, 605, 617, 662, 695, 731, 738, 757, 847, 878, 892, 921, 928, 945, 959, 981, 984, 991, 1046, 1047, 1167, 1196, 1206, 1208, 1237, 1243, 1267, 1284, 1289, 1345, 1353, 1354, 1397, 1402, 1437, 1445, 1446, 1437, 1445, 1446, 1518, 1565, 1670, 1686

HABITAT MANAGEMENT

201, 281, 402, 440, 524, 598, 662, 959, 1046, 1047, 1397, 1518, 1667, 1686

HABITAT

13, 212, 551, 662, 695, 731, 921, 945, 981, 1046, 1047, 1167, 1208, 1243, 1284, 1289, 1345, 1353, 1354, 1397, 1402, 1518, 1565, 1670

FORAGING BEHAVIOR

302, 440, 463, 695, 878, 984, 1167, 1353, 1354, 1437, 1446, 1518

BREEDING, NESTING

13, 38, 57, 201, 212, 273, 302, 598, 605, 617, 695, 731, 847, 928, 1196, 1237, 1243, 1289, 1353, 1354, 1437, 1518

NEST AND ROOST TREES

13, 281, 440, 991, 1208, 1289, 1518, 1686

NEST BOXES AND HOUSES

13, 281, 440, 508, 588, 598

BIOLOGY, ECOLOGY, LIFE HISTORY

38, 112, 223, 551, 757, 928, 945, 1267, 1445, 1518,

RELATIONS WITH OTHER FAUNA 273, 892

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 261, 302, 551, 731, 921, 1196, 1284, 1402 IDENTIFICATION, TAXONOMY 1196, 1206, 1208, 1243, 1284, 1289

WHISKERED OWL, OTUS TRICHOPSIS

SUMMARY

38, 112, 223, 261, 463, 757, 1196, 1208, 1284, 1353, 1354, 1445, 1565

HABITAT

1208, 1284, 1353, 1354, 1565

FORAGING BEHAVIOR

463, 1353, 1354

BREEDING, NESTING

1196, 1354, 1355, 1566

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY 38, 112, 223, 757, 1445

DISTRIBUTION, POPULATION DENSITY, STATUS 261, 1284

IDENTIFICATION, TAXONOMY 1196, 1208, 1284

FLAMMULATED OWL, OTUS FLAMMEOLUS

SUMMARY

38, 62, 112, 123, 201, 203, 212, 223, 261, 400, 463, 486, 617, 684, 724, 731, 757, 779, 928, 945, 977, 1042, 1094, 1196, 1208, 1237, 1284, 1353, 1354, 1445, 1520, 1565, 1667

HABITAT MANAGEMENT

201, 400, 486, 1520, 1667

HABITAT

62, 123, 201, 212, 400, 486, 684, 731, 945, 1208, 1284, 1353, 1354, 1520, 1565

FORAGING BEHAVIOR

463, 724, 779, 1353, 1354, 1520

BREEDING, NESTING

201, 202, 212, 617, 731, 928, 1196, 1237, 1353, 1354, 1520, 1565

NEST AND ROOST TREES

202, 1208, 1520

BIOLOGY, ECOLOGY, LIFE HISTORY 38, 112, 202, 223, 757, 928, 945, 1445, 1520

TERRITORY

977

DISTRIBUTION, POPULATIONS DENSITY, STATUS 62, 212, 261, 684, 731, 1094, 1196, 1284 IDENTIFICATION, TAXONOMY

1042, 1196, 1208, 1284

HAWK OWL, SURNIA ULULA

SUMMARY

38, 39, 112, 212, 223, 261, 302, 463, 551, 625, 626, 731, 757, 945, 1039, 1196, 1208, 1243, 1284, 1289, 1354, 1445, 1565

HABITAT

212, 551, 731, 1039, 1208, 1243, 1284, 1289, 1354, 1565

FORAGING BEHAVIOR

302, 463, 1039, 1354

BREEDING, NESTING

39, 212, 302, 625, 626, 731, 1196, 1243, 1289, 1354, 1565

NEST AND ROOST TREES
1208, 1289
BIOLOGY, ECOLOGY LIFE HISTORY
38, 112, 223, 551, 757, 1445
DISTRIBUTION, POPULATION DENSITY, STATUS
212, 261, 302, 551, 731, 1196, 1284
IDENTIFICATION, TAXONOMY
1196, 1208, 1243, 1284, 1289

PYGMY OWL, GLAUCIDIUM GNOMA

SUMMARY

38, 62, 111, 184, 193, 201, 212, 223, 261, 400, 463, 486, 617, 731, 747, 757, 928, 1038, 1046, 1047, 1167, 1180, 1196, 1208, 1237, 1284, 1333, 1353, 1354, 1445, 1504, 1520, 1565

HABITAT MANAGEMENT 201, 400, 486, 1046, 1047, 1520

HABITAT

62, 201, 212, 400, 486, 731, 747, 1038, 1046, 1047, 1167, 1180, 1208, 1284, 1353, 1354, 1504, 1520, 1565

FORAGING BEHAVIOR 184, 463, 1167, 1354, 1520, 1565

BREEDING, NESTING

201, 212, 617, 731, 928, 1196, 1237, 1353, 1354, 1520

NEST AND ROOST TREES

1208, 1520

BIOLOGY, ECOLOGY, LIFE HISTORY 38, 112, 223, 757, 928, 1445, 1520

DISTRIBUTION, POPULATION DESITY, STATUS 62, 193, 212, 261, 731, 747, 1196, 1284, 1520

IDENTIFICATION, TAXONOMY 1196, 1208, 1284

FERRUGINOUS OWL, GLAUCIDIUM BRASILIANUM

SUMMARY

38, 112, 223, 261, 463, 617, 743, 757, 1196, 1208, 1243, 1284, 1354, 1445, 1565

HABITAT

743, 1208, 1243, 1284, 1354, 1565

FORAGING BEHAVIOR

463, 1354

BREEDING, NESTING

617, 1196, 1243, 1354, 1565

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY

38, 112, 223, 757, 1445

DISTRIBUTION, POPULATION DENSITY, STATUS

261, 1196, 1284

IDENTIFICATION, TAXONOMY

1196, 1208, 1243, 1284

ELF OWL, MICRATHENE WHITNEYI

SUMMARY

38, 112, 223, 261, 463, 615, 617, 757, 922, 981, 1196, 1208, 1284, 1353, 1354, 1445, 1565, 1596, 1670

HABITAT MANAGEMENT

1596

HABITAT

615, 981, 1208, 1284, 1353, 1354, 1565, 1670

FORAGING BEHAVIOR

463, 1353, 1354

BREEDING, NESTING

617, 1196, 1353, 1354, 1565, 1596

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY

38, 223, 757, 922, 1445

TERRITORY

1596

DISTRIBUTION, POPULATION DENSITY, STATUS

261, 615, 1196, 1284

IDENTIFICATION, TAXONOMY

1196, 1208, 1284

BARRED OWL, STRIX VARIA

SUMMARY

34, 38, 112, 181, 199, 223, 233, 261, 302, 374, 400, 402, 440, 463, 502, 550, 551, 558, 598, 605, 662, 695, 757, 778, 945, 959, 1019, 1039, 1132, 1136, 1196, 1206, 1208, 1209, 1243, 1267, 1284, 1289, 1354, 1378, 1397, 1402, 1437, 1445, 1515, 1520, 1596, 1647, 1686

HABITAT MANAGEMENT

34, 400, 402, 440, 502, 598, 662, 959, 1019, 1397, 1515, 1596, 1647, 1686

HABITAT

34, 181, 400, 550, 598, 605, 662, 695, 945, 1132, 1136, 1208, 1243, 1284, 1289, 1354, 1397, 1402, 1515, 1520

FORAGING BEHAVIOR

302, 440, 463, 589, 695, 1039, 1354, 1437, 1520

BREEDING, NESTING

302, 598, 605, 695, 1019, 1196, 1243, 1289, 1354, 1437, 1520, 1596

NEST AND ROOST TREES

440, 1019, 1208, 1289, 1520, 1686

NEST BOXES AND HOUSES

440, 588, 598, 605, 695, 1520

BIOLOGY, ECOLOGY, LIFE HISTORY

34, 112, 223, 551, 757, 778, 945, 1136, 1209, 1267, 1378, 1445, 1515, 1520

TERRITORY

1596

DISTRIBUTION, POPULATION DENSITY, STATUS 199, 233, 261, 302, 374, 550, 551, 778, 1196, 1284, 1402

IDENTIFICATION, TAXONOMY

695, 1196, 1206, 1208, 1243, 1284, 1289

SPOTTED OWL, STRIX OCCIDENTALIS

SUMMARY

38, 39, 112, 193, 201, 223, 261, 392, 463, 480, 544, 594, 617, 684, 690, 724, 731, 757, 928, 978, 1046, 1196, 1208, 1245, 1284, 1340, 1353, 1354, 1445, 1520, 1565, 1702

HABITAT MANAGEMENT

201, 1046, 1340, 1520, 1702

HABITAT

201, 594, 684, 731, 978, 1046, 1208, 1284, 1353, 1354, 1520, 1565

FORAGING BEHAVIOR

463, 594, 690, 724, 978, 1353, 1354, 1520

BREEDING, NESTING

39, 201, 617, 731, 928, 1196, 1353, 1354, 1520, 1565

NEST AND ROOST TREES

1208, 1520

BIOLOGY, ECOLOGY, LIFE HISTORY 38, 112, 223, 392, 480, 757, 928, 1445, 1520 DISTRIBUTION, POPULATION DENSITY, STATUS 193, 261, 544, 684, 731, 1196, 1245, 1284, 1702 IDENTIFICATION, TAXONOMY 1196, 1208, 1284

BOREAL OWL, AEGOLIUS FUNEREUS

SUMMARY

38, 39, 112, 162, 212, 223, 246, 261, 396, 419, 440, 463, 551, 656, 757, 1196, 1208, 1243, 1267, 1284, 1289, 1354, 1445, 1565

HABITAT

212, 551, 656, 1208, 1243, 1284, 1289, 1354, 1565

FORAGING BEHAVIOR

162, 246, 440, 463, 1354

BREEDING, NESTING

39, 212, 396, 1196, 1243, 1289, 1354, 1565

NEST AND ROOST TREES

440, 1208, 1289

NEST BOXES AND HOUSES

440

BIOLOGY, ECOLOGY, LIFE HISTORY

38, 112, 223, 551, 757, 1267, 1445

DISTRIBUTION, POPULATION DENSITY, STATUS

212, 261, 396, 419, 551, 1196, 1284

IDENTIFICATION, TAXONOMY

1196, 1208, 1243, 1284, 1289

SAW-WHET OWL, AEGOLUS ACADICUS

SUMMARY

38, 39, 112, 162, 201, 212, 223, 261, 400, 439, 463, 474, 479, 486, 508, 551, 588, 598, 605, 617, 695, 731, 757, 928, 945, 999, 1019, 1023, 1038, 1039, 1046, 1047, 1094, 1108, 1136, 1189, 1196, 1206, 1208, 1243, 1267, 1284, 1289, 1332, 1333, 1350, 1351, 1354, 1397, 1420, 1445, 1515, 1520, 1565, 1595

201, 400, 439, 486, 598, 1019, 1023, 1046, 1047, 1397, 1515, 1520

HABITAT

201, 212, 400, 486, 551, 598, 605, 695, 731, 945, 1038, 1046, 1047, 1094, 1108, 1116, 1208, 1243, 1284, 1289, 1354, 1397, 1420, 1515, 1520, 1565

FORAGING BEHAVIOR

HABITAT MANAGEMENT

162, 439, 463, 479 598, 695, 1039, 1354, 1520

BREEDING, NESTING

39, 201, 212, 598, 605, 617, 695, 731, 928, 999, 1019, 1189, 1196, 1243, 1289, 1332, 1354, 1520, 1565

NEST AND ROOST TREES

439, 1019, 1023, 1208, 1289, 1351, 1520

NEST BOXES AND HOUSES

439, 508, 588, 598, 605, 695

BIOLOGY, ECOLOGY, LIFE HISTORY

38, 112, 223, 551, 757, 928, 945, 1136, 1267, 1350, 1445, 1515, 1520

RELATIONS WITH OTHER FAUNA

479

TERRITORY

474, 1108

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 261, 474, 551, 731, 1094, 1108, 1196, 1284, 1333, 1420, 1595

IDENTIFICATION, TAXONOMY 695, 1196, 1206, 1208, 1243, 1284, 1289

CHIMNEY SWIFT, CHAETURA PELAGICA

SUMMARY

22, 141, 313, 365, 366, 367, 368, 369, 370, 371, 373, 440, 551, 580, 605, 617, 695, 778, 888, 945, 1136, 1196, 1206, 1208, 1243, 1284, 1354, 1508, 1513, 1565, 1596, 1625, 1701

HABITAT MANAGEMENT

22, 313, 373, 440, 605, 1508, 1513, 1596

HABITAT

373, 551, 695, 945, 1136, 1208, 1243, 1284, 1354, 1508, 1513, 1565, 1625

FORAGING BEHAVIOR

369, 440, 695, 888, 1354

BREEDING, NESTING

141, 366, 367, 368, 369, 370, 580, 605, 617, 695, 888, 1196, 1243, 1354, 1565, 1596

NEST AND ROOST TREES

141, 440, 580, 1208

NEST BOXES AND HOUSES

440, 695

BIOLOGY, ECOLOGY, LIFE HISTORY 366, 367, 371, 551, 778, 888, 945, 1136, 1513

TERRITORY

365, 1596

DISTRIBUTION, POPULATION DENSITY, STATUS 551, 778, 1196, 1284, 1701

IDENTIFICATION, TAXONOMY 695, 1196, 1206, 1208, 1243, 1284

VAUX'S SWIFT, CHAETURA VAUXI

SUMMARY

66, 67, 153, 212, 555, 617, 731, 747, 888, 945, 1046, 1047, 1068, 1111, 1166, 1167, 1180, 1196, 1208, 1284, 1335, 1337, 1354, 1421, 1520, 1529, 1565, 1596

HABITAT MANAGEMENT

1046, 1047, 1520, 1596

HABITAT

153, 212, 731, 747, 945, 1047, 1068, 1111, 1166, 1167, 1180, 1208, 1284, 1354, 1421, 1520, 1565

FORAGING BEHAVIOR

153, 888, 1167, 1354, 1520

BREEDING, NESTING

66, 67, 153, 212, 555, 617, 731, 888, 1196, 1354, 1520, 1529, 1565, 1596

NEST AND ROOST TREES

1208, 1520

NEST BOXES AND HOUSES

1530

BIOLOGY, ECOLOGY, LIFE HISTORY 67, 888, 945, 1520

TERRITORY

1596

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 731, 747, 1196, 1284, 1335, 1337, 1421

IDENTIFICATION, TAXONOMY

1196, 1208, 1284

COPPERY-TAILED TROGON, TROGON ELEGANS

SUMMARY

617, 928, 1196, 1208, 1284, 1333, 1334, 1565

HABITAT

1208, 1284, 1333, 1334, 1565

FORAGING BEHAVIOR

1333, 1334

BREEDING, NESTING

617, 928, 1196, 1333, 1334, 1565

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY

928

DISTRIBUTION, POPULATION DENSITY, STATUS

1196, 1284

IDENTIFICATION, TAXONOMY

1196, 1208, 1284

WOODPECKERS—GENERAL INFORMATION

SUMMARY

25, 32, 60, 63, 90, 113, 138, 139, 142, 152, 221, 245, 254, 274, 311, 330, 338, 353, 359, 362, 453, 540, 577, 612, 614, 645, 697, 699, 818, 834, 836, 837, 854, 855, 877, 911, 923, 930, 1007, 1041, 1056, 1084, 1119, 1122, 1147, 1163, 1171, 1174, 1175, 1195, 1240, 1281, 1307, 1309, 1311, 1312, 1337, 1341, 1358, 1363, 1384, 1385, 1386, 1387, 1388, 1389, 1390, 1392, 1401, 1411, 1413, 1427, 1428, 1493, 1551, 1557, 1573, 1592, 1602, 1637, 1679, 1680, 1681

HABITAT MANAGEMENT

577, 699, 1056, 1573, 1637

HABITAT

60, 274, 330, 577, 699, 930, 1084, 1175, 1341, 1384, 1385, 1386, 1388, 1637

FORAGING BEHAVIOR

63, 90, 254, 274, 330, 5401 614, 697, 834, 877, 1041, 1119, 1163, 1171, 1174, 1195, 1240, 1363, 1385, 1386, 1387, 1389, 1428, 1557, 1681

BREEDING, NESTING

818, 838, 854, 855, 923, 1363, 1385, 1386, 1387, 1401, 1411, 1413, 1493, 1551, 1557

NEST AND ROOST TREES

138, 139, 453, 540, 612, 854, 855, 1007, 1147, 1363, 1428

BIOLOGY, ECOLOGY, LIFE HISTORY

113, 221, 330, 359, 362, 911, 1041, 1122, 1281, 1385, 1386, 1387, 1389, 1390, 1392

RELATIONS WITH OTHER FAUNA 453

TERRITORY

142, 353, 1358, 1363, 1428

DISTRIBUTION, POPULATION DENSITY, STATUS 152, 338, 645, 1363, 1602

IDENTIFICATION, TAXONOMY

245, 1195, 1384, 1592

WOODPECKER-CAUSED DAMAGE

353, 1007, 1119, 1309, 1311, 1312, 1679, 1680

COMMON FLICKER, COLAPTES AURATUS

SUMMARY

22, 35, 36, 49, 53, 56, 57, 59, 60, 62, 90, 123, 127, 133, 155, 173, 181, 183, 185, 186, 196, 198, 201, 212, 214, 237, 239, 241, 265, 272, 277, 280, 281, 283, 284, 289, 313, 356, 374,

376, 391, 395, 400, 415, 432, 438, 440, 441, 450, 473, 486, 508, 551, 580, 596, 598, 605, 607, 610, 617, 628, 662, 677, 684, 695, 703, 731, 747, 766, 778, 796, 821, 892, 911, 920, 928, 944, 945, 959, 969, 985, 991, 1019, 1022, 1023, 1038, 1046, 1047, 1051, 1056, 1069, 1094, 1111, 1128, 1135, 1138, 1166, 1167, 1180, 1196, 1206, 1208, 1241, 1242, 1243, 1253, 1258, 1283, 1284, 1289, 1326, 1327, 1329, 1333, 1335, 1336, 1337, 1343, 1351, 1352, 1353, 1354, 1369, 1381, 1383, 1397, 1412, 1421, 1439, 1440, 1443, 1448, 1458, 1463, 1475, 1485, 1504, 1508, 1515, 1517, 1520, 1565, 1593, 1594, 1625, 1646, 1663, 1664, 1667, 1670, 1678, 1686, 1690, 1697, 1698, 1703

HABITAT MANAGEMENT
22, 49, 53, 201, 237, 281, 283, 289, 313, 400, 438, 440, 486, 598, 662, 959, 1019, 1022, 1023, 1046, 1047, 1051, 1056, 1253, 1283, 1329, 1352, 1397, 1508, 1515, 1520, 1646, 1663, 1667, 1686

HABITAT

35, 36, 53, 60, 62, 123, 127, 181, 201, 212, 237, 241, 265, 272, 277, 284, 289, 313, 376, 400, 415, 438, 386, 551, 598, 605, 607, 628, 662, 684, 695, 731, 747, 920, 944, 945, 1038, 1046, 1047, 1051, 1094, 1135, 1166, 1167, 1180, 1208, 1243, 1253, 1258, 1283, 1284, 1289, 1326, 1327, 1329, 1353, 1354, 1397, 1421, 1439, 1443, 1475, 1504, 1508, 1515, 1520, 1565, 1594, 1625, 1670, 1698

FORAGING BEHAVIOR

60, 90, 133, 183, 185, 196, 192, 265, 280, 289, 395, 440, 473, 598, 607, 610, 695, 911, 944, 985, 1069, 1167, 1258, 1326, 1327, 1329, 1353, 1354, 1458, 1485, 1520, 1697

BREEDING, NESTING

56, 57, 127, 201, 212, 214, 239, 277, 283, 284, 356, 432, 596, 598, 605, 610, 617, 695, 703, 731, 796, 821, 911, 928, 1019, 1022, 1138, 1196, 1241, 1242, 1243, 1289, 1343, 1353, 1354, 1412, 1448, 1520, 1565, 1593, 1690

NEST AND ROOST TREES

59, 127, 281, 356, 440, 580, 598, 610, 991, 1019, 1022, 1023, 1208, 1283, 1289, 1351, 1463, 1520, 1686

NEST BOXES AND HOUSES

281, 440, 508, 610, 695

BIOLOGY, ECOLOGY, LIFE HISTORY 155, 239, 432, 450, 551, 610, 778, 911, 928, 945, 1135, 1326, 1336, 1381, 1383, 1439, 1515, 1517, 1520, 1678, 1697

RELATIONS WITH OTHER FAUNA

201, 356, 391, 677, 703, 766, 892, 1343, 1458

TERRITORY

173, 214, 1329, 1381, 1458

DISTRIBUTION, POPULATION DENSITY, STATUS 49, 62, 198, 212, 374, 415, 551, 580, 684, 731, 747, 778, 920, 969, 1094, 1196, 1258, 1284, 1333, 1335, 1337, 1421, 1440, 1594, 1664, 1678

IDENTIFICATION, TAXONOMY

186, 241, 610, 695, 1196, 1206, 1208, 1243, 1284, 1289, 1336, 1381, 1383

PILEATED WOODPECKER, DRYCOPUS PILEATUS

SUMMARY

22, 35, 39, 59, 90, 94, 122, 152, 153, 155, 191, 193, 198, 200, 201, 202, 204, 205, 212, 236, 237, 239, 273, 276, 277, 280, 281, 283, 284, 286, 290, 313, 340, 358, 363, 373, 374, 387, 405, 438, 440, 450, 551, 580, 586, 598, 605, 607, 610, 617, 662, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 695, 730, 731, 747, 753, 778, 794, 795, 797, 819, 822, 828, 829, 835, 912, 945, 969, 982, 985, 1019, 1020, 1021, 1022, 1023,

1029, 1046, 1047, 1050, 1052, 1068, 1086, 1111, 1136, 1166, 1180, 1196, 1206, 1208, 1215, 1243, 1263, 1283, 1284, 1289, 1308, 1310, 1329, 1333, 1343, 1354, 1397, 1421, 1442, 1491, 1515, 1519, 1520, 1552, 1553, 1565, 1594, 1599, 1646, 1647, 1663, 1664, 1667, 1686, 1696, 1698, 1703

HABITAT MANAGEMENT

22, 122, 201, 236, 237, 277, 281, 283, 286, 313, 340, 373, 438, 440, 586, 598, 662, 1019, 1020, 1022, 1023, 1046, 1047, 1050, 1283, 1329, 1515, 1520, 1647, 1663, 1686

HABITAT

35, 122, 153, 201, 204, 205, 212, 236, 237, 280, 284, 286, 373, 438, 551, 586, 598, 605, 607, 662, 695, 730, 731, 747, 945, 982, 1019, 1020, 1021, 1046, 1047, 1050, 1068, 1111, 1136, 1166, 1180, 1208, 1215, 1243, 1283, 1284, 1289, 1329, 1354, 1397, 1421, 1515, 1520, 1565, 1594, 1696, 1698, 1703

90, 122, 153, 191, 200, 204, 205, 277, 280, 286, 387, 440, 598, 607, 610, 676, 678, 679, 695, 829, 985, 1019, 1020, 1021, 1052, 1308, 1329, 1354, 1442, 1491, 1519, 1520

BREEDING, NESTING

FORAGING BEHAVIOR

39, 59, 122, 153, 200, 201, 204, 205, 212, 239, 273, 277, 283, 284, 340, 580, 598, 605, 610, 617, 674, 675, 676, 677, 695, 731, 797, 819, 822, 835, 912, 1019, 1022, 1029, 1196, 1243, 1289, 1310, 1343, 1354, 1491, 1520, 1552, 1553, 1599

NEST AND ROOST TREES

59, 200, 202, 204, 205, 277, 281, 440, 580, 598, 610, 822, 1019, 1020, 1023, 1208, 1283, 1289, 1520, 1646, 1686

NEST BOXES AND HOUSES

281, 440, 610, 695

BIOLOGY, ECOLOGY, LIFE HISTORY 94, 152, 191, 202, 290, 450, 551, 610, 674, 675, 677, 680, 681, 682, 683, 778, 795, 828, 829, 835, 945, 1019, 1086, 1136, 1215, 1515, 1520

RELATIONS WITH OTHER FAUNA 201, 273, 277, 358, 677, 794, 797, 819, 912, 1019, 1020, 1263, 1343, 1519

TERRITORY

39, 122, 200, 676, 794, 1019, 1329, 1599

DISTRIBUTION, POPULATION DENSITY, STATUS 193, 198, 212, 363, 374, 405, 551, 730, 731, 747, 753, 778, 969, 1019, 1111, 1196, 1284, 1333, 1421, 1594, 1664 IDENTIFICATION, TAXONOMY

610, 695, 1196, 1206, 1208, 1243, 1284, 1289

RED-BELLIED WOODPECKER, MELANERPES CAROLINUS

SUMMARY

22, 35, 36, 57, 58, 90, 96, 180, 275, 277, 281, 290, 313, 373, 374, 438, 440, 551, 580, 586, 598, 605, 610, 695, 710, 778, 790, 791, 805, 830, 945, 959, 985, 1031, 1051, 1196, 1206, 1208, 1243, 1272, 1283, 1284, 1289, 1329, 1354, 1359, 1397, 1442, 1463, 1477, 1485, 1515, 1649, 1664, 1672, 1678, 1686, 1696

HABITAT MANAGEMENT

22, 281, 313, 373, 438, 440, 586, 598, 959, 1051, 1283, 1329, 1397, 1515, 1649, 1686, 1696

HABITAT

35, 36, 180, 277, 313, 373, 438, 551, 586, 598, 605, 830, 945, 1051, 1208, 1283, 1284, 1329, 1354, 1359, 1397, 1515, 1672, 1696

FORAGING BEHAVIOR

90, 275, 598, 610, 695, 805, 985, 1031, 1272, 1329, 1354, 1442, 1485

BREEDING, NESTING

57, 277, 580, 598, 605, 610, 695, 710, 790, 791, 830, 1196, 1243, 1272, 1289, 1354, 1477

NEST AND ROOST TREES

281, 440, 580, 598, 610, 830, 1208, 1283, 1289, 1463, 1686

NEST BOXES AND HOUSES

281, 440, 610, 695

BIOLOGY, ECOLOGY, LIFE HISTORY 551, 610, 778, 791, 945, 1515, 1678

RELATIONS WITH OTHER FAUNA

58, 96, 275, 1031, 1359, 1477

TERRITORY

1272, 1329, 1672

DISTRIBUTION, POPULATION DENSITY, STATUS 374, 551, 778, 1196, 1284, 1664, 1678

IDENTIFICATION, TAXONOMY

610, 695, 1196, 1206, 1208, 1243, 1284, 1289

GOLDEN-FRONTED WOODPECKER, MELANERPES AURIFRONS

SUMMARY

90, 617, 985, 1196, 1208, 1243, 1284, 1354, 1359, 1361, 1565 HABITAT

1208, 1243, 1284, 1354, 1359, 1361, 1565

FORAGING BEHAVIOR

90, 985, 1354, 1361

BREEDING, NESTING

617, 1196, 1243, 1354, 1565

NEST AND ROOST TREES

1208

RELATIONS WITH OTHER FAUNA

1359

TERRITORY

1361

DISTRIBUTION, POPULATION DENSITY, STATUS 1196, 1284

IDENTIFICATION, TAXONOMY 1196, 1208, 1243, 1284

GILA WOODPECKER, MELANERPES UROPYGIALIS

SUMMARY

90, 272, 617, 627, 743, 928, 1196, 1208, 1284, 1353, 1354, 1565, 1670

HABITAT

272, 627, 743, 1208, 1284, 1353, 1354, 1565, 1670

FORAGING BEHAVIOR

90, 1353, 1354

BREEDING, NESTING

617, 627, 928, 1196, 1353, 1354, 1565

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY 928

TERRITORY

627

DISTRIBUTION, POPULATION DENSITY, STATUS 1196, 1284

IDENTIFICATION, TAXONOMY

1196, 1208, 1284

RED-HEADED WOODPECKER, MELANERPES ERYTHROCEPHALUS

SUMMARY

57, 59, 90, 96, 150, 172, 173, 212, 277, 278, 281, 284, 287, 374, 440, 441, 458, 502, 546, 551, 598, 605, 610, 617, 695, 710, 778, 792, 793, 798, 830, 832, 853, 928, 945, 969, 985, 1101, 1136, 1196, 1206, 1208, 1243, 1272, 1282, 1284, 1289, 1297, 1308, 1310, 1329, 1353, 1354, 1359, 1397, 1402, 1444, 1463, 1515, 1617, 1672, 1678, 1696

HABITAT MANAGEMENT

281, 440, 502, 598, 1282, 1329, 1397, 1515, 1696

HABITAT

212, 277, 284, 546, 551, 598, 605, 695, 830, 945, 1101, 1208, 1243, 1282, 1284, 1289, 1329, 1353, 1354, 1359, 1397, 1402, 1515, 1617, 1672, 1696

FORAGING BEHAVIOR

90, 440, 598, 610, 695, 792, 985, 1101, 1272, 1308, 1329, 1353, 1354

BREEDING, NESTING

57, 59, 172, 212, 277, 278, 284, 598, 605, 610, 617, 695, 710, 798, 830, 832, 928, 1196, 1243, 1272, 1282, 1289, 1310, 1353, 1354, 1444

NEST AND ROOST TREES

59, 281, 440, 598, 610, 830, 1208, 1282, 1289, 1463

NEST BOXES AND HOUSES 281, 440, 610, 695

BIOLOGY, ECOLOGY, LIFE HISTORY

551, 610, 778, 832, 853, 928, 945, 1136, 1297, 1515, 1678

RELATIONS WITH OTHER FAUNA

96, 150, 853, 1359

TERRITORY

173, 793, 1272, 1329, 1672

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 374, 441, 458, 551, 778, 969, 1196, 1284, 1402, 1678 IDENTIFICATION, TAXONOMY

610, 1196, 1206, 1208, 1243, 1284, 1289

ACORN WOODPECKER, MELANERPES FORMICIVORUS

SUMMARY

60, 90, 123, 146, 201, 250, 567, 617, 862, 863, 864, 928, 944, 970, 971, 972, 1038, 1167, 1196, 1208, 1284, 1288, 1326, 1353, 1354, 1452, 1453, 1454, 1496, 1540, 1550, 1565, 1663, 1664, 1697

HABITAT MANAGEMENT

201, 1288, 1663

HABITATI

60, 123, 146, 201, 944, 970, 1038, 1167, 1208, 1284, 1288, 1326, 1353, 1354, 1565

FORAGING BEHAVIOR

60, 90, 250, 944, 970, 971, 1167, 1326, 1353, 1354, 1454, 1697

BREEDING, NESTING

201, 617, 862, 863, 928, 970, 1196, 1353, 1354, 1452, 1496, 1540, 1550, 1697

NEST AND ROOST TREES

567, 1208

BIOLOGY, ECOLOGY, LIFE HISTORY

146, 862, 863, 928, 970, 972, 1326, 1452, 1453, 1454, 1697

RELATIONS WITH OTHER FAUNA

1550

TERRITORY

970, 1496

DISTRIBUTION, POPULATION DENSITY, STATUS 864, 1196, 1284, 1664 IDENTIFICATION, TAXONOMY 1196, 1208, 1284

LEWIS' WOODPECKER, MELANERPES LEWIS

SUMMARY

90, 123, 145, 161, 201, 296, 312, 395, 400, 450, 574, 617, 731, 747, 753, 921, 928, 985, 991, 1019, 1038, 1128, 1180, 1196, 1208, 1284, 1333, 1353, 1354, 1402, 1438, 1443, 1482, 1520, 1559, 1565, 1617, 1646, 1667, 1668

HABITAT MANAGEMENT 201, 400, 1019, 1520, 1667

HABITAT

123, 201, 400, 731, 747, 921, 1128, 1180, 1208, 1284, 1353, 1354, 1402, 1443, 1482, 1559, 1565, 1617

FORAGING BEHAVIOR

90, 395, 985, 1353, 1354, 1520

BREEDING, NESTING

145, 201, 312, 400, 731, 928, 1019, 1195, 1353, 1354, 1520, 1559, 1565

NEST AND ROOST TREES

991, 1019, 1208, 1520, 1559, 1646

BIOLOGY, ECOLOGY, LIFE HISTORY 145, 450, 574, 928, 1438, 1520

RELATIONS WITH OTHER FAUNA 161

TERRITORY

145

DISTRIBUTION, POPULATION DENSITY, STATUS 731, 747, 753, 921, 1196, 1284, 1333, 1402, 1668 IDENTIFICATION, TAXONOMY

296, 1196, 1208, 1284

YELLOW-BELLIED SAPSUCKER, SPHYRAPICUS VARIUS

SUMMARY

49, 53, 86, 90, 107, 123, 153, 160, 198, 201, 212, 237, 265, 268, 272, 277, 281, 287, 304, 322, 328, 358, 374, 376, 400, 407, 415, 420, 431, 438, 440, 481, 486, 487, 517, 551, 580, 605, 607, 610, 617, 670, 671, 684, 692, 695, 731, 738, 746, 747, 778, 787, 788, 789, 791, 802, 804, 806, 814, 831, 833, 881, 909, 911, 920, 928, 945, 969, 985, 991, 1019, 1021, 1022, 1023, 1031, 1046, 1047, 1069, 1094, 1111, 1133, 1135, 1136, 1159, 1160, 1169, 1180, 1196, 1206, 1208, 1210, 1211, 1264, 1284, 1289, 1315, 1316, 1327, 1329, 1333, 1353, 1354, 1372, 1373, 1397, 1402, 1421, 1426, 1440, 1443, 1449, 1458, 1478, 1485, 1502, 1503, 1504, 1515, 1520, 1565, 1594, 1617, 1646, 1663, 1664, 1667, 1672, 1679, 1711

HABITAT MANAGEMENT

49, 53, 201, 237, 281, 304, 400, 438, 440, 486, 1019, 1021, 1022, 1023, 1046, 1047, 1329, 1397, 1515, 1520, 1663, 1667

HABITAT

53, 90, 123, 153, 201, 212, 237, 265, 272, 276, 304, 376, 400, 415, 438, 486, 551, 605, 607, 684, 695, 731, 738, 747, 920, 945, 1021, 1046, 1047, 1094, 1111, 1136, 1180, 1208, 1284, 1289, 1327, 1329, 1353, 1354, 1397, 1402, 1421, 1443, 1504, 1515, 1520, 1694, 1617, 1672

FORAGING BEHAVIOR

86, 153, 265, 287, 322, 407, 420, 440, 517, 607, 610, 695, 787, 788, 789, 791, 881, 909, 911, 985, 1069, 1159, 1160, 1169, 1327, 1329, 1353, 1354, 1372, 1373, 1449, 1458, 1478, 1485, 1502, 1503, 1520, 1711

BREEDING, NESTING

107, 153, 160, 201, 212, 277, 328, 487, 517, 580, 605, 610, 617, 670, 695, 731, 738, 802, 804, 806, 814, 831, 833, 911, 928, 1019, 1022, 1196, 1289, 1316, 1353, 1354, 1520, 1565

NEST AND ROOST TREES

107, 277, 281, 431, 440, 580, 610, 806, 814, 991, 1019, 1022, 1023, 1169, 1208, 1289, 1373, 1520, 1646

NEST BOXES AND HOUSES

281, 440, 610, 695

BIOLOGY, ECOLOGY, LIFE HISTORY 551, 610, 738, 778, 831, 911, 928, 945, 1136, 1264, 1327, 1449, 1515, 1520

RELATIONS WITH OTHER FAUNA

86, 160, 358, 431, 481, 487, 787, 788, 791, 814, 1031, 1133, 1135, 1210, 1426, 1478

TERRITORY

671, 1316, 1329, 1458, 1672

DISTRIBUTION, POPULATION DENSITY, STATUS 49, 198, 212, 374, 551, 684, 692, 731, 747, 778, 920, 969, 1094, 1196, 1284, 1333, 1402, 1421, 1440, 1664

IDENTIFICATION, TAXONOMY

610, 695, 1196, 1206, 1208, 1264, 1284, 1289

SAPSUCKER DAMAGE

407, 420, 746, 881, 909, 969, 1159, 1169, 1315, 1372, 1679, 1711

WILLIAMSON'S SAPSUCKER, SPHYRAPICUS THYROIDEUS

SUMMARY

90, 107, 123, 150, 153, 201, 212, 307, 308, 395, 400, 486, 551, 617, 684, 731, 738, 921, 928, 985, 1019, 1023, 1038, 1053, 1055, 1094, 1159, 1160, 1166, 1196, 1208, 1258, 1284, 1318, 1333, 1351, 1353, 1354, 1372, 1393, 1420, 1439, 1458, 1478, 1504, 1520, 1565, 1595, 1646, 1664, 1667, 1711

HABITAT MANAGEMENT

201, 400, 486, 1019, 1023, 1520, 1667

HABITAT

123, 153, 201, 212, 307, 400, 486, 551, 684, 731, 738, 921, 1038, 1094, 1166, 1208, 1258, 1284, 1353, 1354, 1420, 1439, 1504, 1520, 1565

FORAGING BEHAVIOR

90, 153, 395, 985, 1053, 1159, 1160, 1258, 1353, 1354, 1372, 1458, 1478, 1520, 1711

BREEDING, NESTING

107, 153, 201, 212, 307, 308, 617, 731, 928, 1019, 1055, 1196, 1353, 1354, 1393, 1520, 1565

NEST AND ROOST TREES

107, 307, 1019, 1023, 1208, 1351, 1520, 1646

BIOLOGY, ECOLOGY, LIFE HISTORY

551, 928, 1393, 1439, 1520

RELATIONS WITH OTHER FAUNA

1318, 1393, 1458, 1478

TERRITORY

1458

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 551, 684, 731, 921, 1094, 1196, 1258, 1284, 1333, 1420, 1595, 1664

IDENTIFICATION, TAXONOMY 1196, 1208, 1284, 1393

SAPSUCKER DAMAGE

1159, 1372, 1711

HAIRY WOODPECKER, PICOIDES VILLOSUS

SUMMARY

22, 36, 49, 53, 62, 64, 65, 90, 123, 137, 153, 155, 181, 193, 198, 201, 212, 237, 259, 277, 279, 281, 283, 284, 286, 293, 313, 347, 374, 376, 395, 400, 438, 440, 441, 450, 486, 508, 515, 551, 579, 586, 598, 605, 607, 610, 617, 628, 662, 684, 693, 695, 702, 704, 730, 731, 738, 747, 807, 808, 811, 812, 824, 844, 846, 856, 861, 872, 873, 874, 875, 911, 920, 928, 944, 945, 967, 968, 969, 982, 985, 1019, 1022, 1023, 1038, 1046, 1047, 1062, 1069, 1094, 1111, 1128, 1136, 1166, 1167, 1180, 1196, 1106, 1108, 1143, 1153, 1158, 1183, 1184, 1189, 1126, 1327, 1329, 1333, 1351, 1353, 1354, 1360, 1365, 1368, 1379, 1397, 1402, 1414, 1421, 1439, 1440, 1442, 1443, 1449, 1455, 1458, 1459, 1463, 1477, 1504, 1511, 1515, 1520, 1565, 1594, 1617, 1646, 1647, 1664, 1668, 1686, 1696, 1697, 1698, 1703

HABITAT MANAGEMENT

22, 49, 53, 201, 237, 281, 283, 286, 313, 400, 438, 440, 486, 586, 598, 662, 1019, 1022, 1023, 1046, 1047, 1253, 1329, 1333, 1515, 1520, 1647, 1668, 1686, 1696

HABITAT

36, 53, 62, 123, 137, 153, 181, 201, 212, 237, 259, 277, 286, 376, 400, 438, 486, 551, 586, 598, 605, 607, 628, 662, 684, 695, 730, 731, 738, 747, 811, 920, 945, 982, 1038, 1046, 1047, 1094, 1111, 1128, 1136, 1166, 1167, 1180, 1196, 1208, 1243, 1253, 1258, 1283, 1284, 1289, 1326, 1327, 1329, 1353, 1354, 1397, 1402, 1439, 1443, 1504, 1515, 1520, 1565, 1594, 1617, 1696, 1698, 1703

FORAGING BEHAVIOR

64, 65, 90, 137, 153, 279, 286, 293, 395, 440, 598, 607, 610, 693, 695, 704, 807, 844, 846, 856, 872, 873, 874, 875, 911, 944, 967, 968, 969, 985, 1069, 1167, 1258, 1329, 1353, 1354, 1360, 1365, 1368, 1379, 1442, 1449, 1458, 1459, 1520, 1697

BREEDING, NESTING

153, 201 212, 277, 283, 284, 598, 605, 610, 617, 595, 704, 731, 808, 811, 812, 844, 911, 928, 1019, 1022, 1353, 1354, 1414, 1477, 1511, 1520, 1565

NEST AND ROOST TREES

277, 281, 440, 598, 610, 1019, 1022, 1023, 1208, 1283, 1289, 1351, 1463, 1511, 1520, 1646, 1686

NEST BOXES AND HOUSES

281, 440, 508, 610, 695

BIOLOGY, ECOLOGY, LIFE HISTORY 155, 450, 515, 551, 610, 704, 808, 824, 846, 872, 911, 928, 945, 1062, 1136, 1326, 1327, 1360, 1439, 1449, 1455, 1515, 1520, 1697

RELATIONS WITH OTHER FAUNA 279, 1062, 1458, 1477

TERRITORY

259, 579, 812, 844, 1329, 1414, 1458

DISTRIBUTION, POPULATION DENSITY, STATUS 49, 62, 193, 198, 212, 259, 374, 441, 551, 684, 730, 731, 747, 861, 920, 982, 1094, 1196, 1258, 1333, 1402, 1421, 1440, 1594, 1664

IDENTIFICATION, TAXONOMY

347, 610, 695, 1062, 1196, 1206, 1243, 1284, 1289

DOWNY WOODPECKER, PICOIDES PUBESCENS

SUMMARY

11, 22, 34, 36, 53, 64, 65, 90, 127, 173, 181, 193, 198, 201, 212, 270, 277, 281, 283, 284, 286, 293, 313, 339, 340, 373, 374, 376, 395, 397, 406, 438, 440, 450, 486, 487, 508, 515, 524, 551, 580, 586, 598, 605, 610, 617, 662, 684, 693, 695, 702, 705, 708, 730, 731, 738, 747, 778, 800, 803, 813, 823, 824, 826, 846, 856, 861, 872, 873, 874, 906, 911, 928, 945, 959, 967, 968, 969, 982, 985, 1019, 1023, 1046, 1047, 1051, 1094, 1111, 1136, 1166, 1167, 1180, 1196, 1206, 1208, 1243, 1253, 1284, 1289, 1326, 1320, 1333, 1353, 1354, 1365, 1397, 1402, 1421, 1429, 1443, 1455, 1458, 1463, 1485, 1504, 1508, 1515, 1520, 1544, 1565, 1647, 1664, 1668, 1672, 1678, 1686, 1696, 1698, 1703

HABITAT MANAGEMENT

22, 34, 53, 201, 281, 283, 286, 313, 340, 373, 406, 438, 440, 486, 524, 586, 598, 662, 959, 1019, 1023, 1046, 1047, 1051, 1253, 1329, 1379, 1508, 1515, 1520, 1647, 1668, 1686, 1696,

HABITAT

34, 36, 53, 127, 181, 201, 212, 277, 284, 286, 313, 373, 376, 438, 486, 551, 586, 598, 605, 662, 684, 695, 730, 731, 738, 747, 945, 982, 1046, 1047, 1051, 1094, 1111, 1136, 1166, 1167, 1180, 1208, 1243, 1253, 1284, 1289, 1326, 1329, 1353, 1354, 1397, 1402, 1421, 1504, 1508, 1515, 1520, 1565, 1672, 1698, 1703

FORAGING BEHAVIOR

64, 65, 90, 286, 293, 395, 397, 440, 598, 610, 693, 695, 702, 708, 800, 813, 846, 856, 872, 873, 874, 906, 911, 967, 968, 969, 985, 1167, 1326, 1329, 1353, 1354, 1365, 1458, 1485, 1520, 1544

BREEDING, NESTING

127, 201, 210, 277, 283, 284, 339, 580, 598, 605, 610, 617, 695, 731, 803, 823, 826, 911, 928, 1019, 1196, 1243, 1289, 1353, 1354, 1520, 1703

NEST AND ROOST TREES

127, 281, 406, 440, 580, 610, 1019, 1023, 1208, 1289, 1520, 1686

NEST BOXES AND HOUSES

281, 440, 508, 610, 695

BIOLOGY, ECOLOGY, LIFE HISTORY

450, 515, 551, 610, 705, 708, 778, 803, 824, 826, 846, 872, 911, 928, 945, 1136, 1326, 1455, 1515, 1520, 1678

RELATIONS WITH OTHER FAUNA

11, 1458

TERRITORY

173, 1329, 1429, 1458, 1672

DISTRIBUTION, POPULATION DENSITY, STATUS 193, 198, 212, 374, 486, 684, 731, 747, 778, 861, 982, 1196, 1284, 1333, 1402, 1421 1429, 1664, 1678

IDENTIFICATION, TAXONOMY

610, 1196, 1206, 1208, 1243, 1284, 1289

LADDER-BACKED WOODPECKER, PICOIDES SCALARIS

SUMMARY

50, 90, 265, 272, 415, 617, 928, 1061, 1148, 1196, 1208, 1284, 1354, 1382, 1383, 1504, 1565

HABITAT

265, 272, 415, 1208, 1284, 1354, 1504, 1565

FORAGING BEHAVIOR

50, 90, 265, 1354

BREEDING, NESTING

617, 928, 1196, 1354, 1565

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY

50, 928, 1061, 1383

RELATIONS WITH OTHER FAUNA

1061

DISTRIBUTION, POPULATION DENSITY, STATUS 1196, 1284

1DENTIFICATION, TAXONOMY 1061, 1148, 1196, 1208, 1284, 1382, 1383

NUTTALL'S WOODPECKER, PICOIDES NUTTALLII

SUMMARY

90, 462, 617, 729, 985, 1062, 1196, 1284, 1326, 1354, 1383, 1565, 1697

HABITAT

1284, 1326, 1354, 1565

FORAGING BEHAVIOR

90, 729, 985, 1326, 1354, 1697

BREEDING, NESTING

617, 1196, 1354, 1565

BIOLOGY, ECOLOGY, LIFE HISTORY

1062, 1326, 1383, 1697

DISTRIBUTION, POPULATION DENSITY, STATUS

462, 1196, 1284

IDENTIFICATION, TAXONOMY

1196, 1284, 1383

ARIZONA WOODPECKER, PICOIDES ARIZONAE

SUMMARY

90, 617, 924, 928, 1196, 1208, 1284, 1353, 1354, 1565, 1670

HABITAT

1208, 1284, 1353, 1354, 1565, 1670

FORAGING BEHAVIOR

90, 924, 1353, 1354

BREEDING, NESTING

617, 928, 1196, 1353, 1354, 1565

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY

DISTRIBUTION, POPULATION DENSITY, STATUS

11%, 1284 IDENTIFICATION, TAXONOMY

1196, 1208, 1284

RED-COCKADED WOODPECKER, PICOIDES BOREALIS

SUMMARY

5, 57, 58, 59, 90, 96, 277, 281, 309, 310, 315, 355, 357, 358, 377, 533,586, 605, 610, 665, 695, 705, 706, 707, 711, 712, 713, 714, 715, 718, 821, 822, 913, 914, 915, 919, 924, 925, 926, 945, 985, 1036, 1040, 1051, 1095,1097, 1123, 1196, 1200, 1206, 1243, 1284, 1340, 1354, 1364, 1383, 1410,1468, 1474, 1531, 1532, 1533, 1582, 1583, 1615, 1685

HABITAT MANAGEMENT

96, 281, 315, 586, 713, 718, 913, 926, 1051, 1123, 1200, 1340, 1364, 1531

HABITAT

695, 713, 718, 915, 1051, 1095, 1243, 1284, 1354, 1533 FORAGING BEHAVIOR

57, 58, 90, 96, 377, 610, 695, 924, 925, 926, 985, 1095, 1354, 1410, 1531, 1615

BREEDING, NESTING

57, 96, 277, 309, 357, 605, 610, 665, 695, 707, 714, 718, 915, 919, 925, 926, 1036, 1097, 1196, 1243, 1354, 1468, 1474, 1531, 1533

NEST AND ROOST TREES

5, 59, 96, 281, 357, 358, 610, 665, 706, 711, 714, 718, 914, 925, 926,1468, 1533

NEST BOXES AND HOUSES

281, 610, 695

BIOLOGY, ECOLOGY, LIFE HISTORY

57, 309, 355, 610, 705, 712, 715, 821, 822, 945, 1040, 1383

RELATIONS WITH OTHER FAUNA

57, 58, 96, 357, 358, 707

TERRITORY

57, 96, 310, 914, 915, 925, 926, 1531

DISTRIBUTION, POPULATION DENSITY, STATUS 713, 821, 822, 1196, 1284, 1364, 1532, 1582, 1583, 1685

IDENTIFICATION, TAXONOMY

610, 695, 1040, 1196, 1206, 1243, 1284, 1384

WHITE-HEAD WOODPECKER, PICOIDES ALBOLARVATUS

SUMMARY

90, 153, 193, 201, 212, 395, 400, 607, 617, 731, 860, 927, 982, 985, 1068, 1196, 1208, 1284, 1326, 1354, 1421, 1520, 1565, 1595, 1664, 1667

HABITAT MANAGEMENT

201, 400, 1520, 1667

HABITAT

153, 201, 212, 400, 607, 731, 982, 1068, 1208, 1285, 1326, 1354, 1421, 1520, 1565

FORAGING BEHAVIOR

90, 153, 395, 607, 860, 927, 985, 1326, 1354, 1520

BREEDING, NESTING

153, 201, 212, 400, 731, 1196, 1354, 1520, 1565

NEST AND ROOST TREES

1208, 1520

BIOLOGY, ECOLOGY, LIFE HISTORY

1326, 1520

DISTRIBUTION, POPULATION DENSITY, STATUS 193, 212, 731, 982, 1196, 1284, 1421, 1595, 1664

IDENTIFICATION, TAXONOMY

1196, 1208, 1284

BLACK-BELLIED THREE-TOED WOODPECKER, PICOIDES ARCTICUS

SUMMARY

1, 34, 53, 74, 90, 137, 147, 153, 193, 201, 212, 351, 416, 440, 470, 551,605, 610, 617, 628, 731, 747, 769, 809, 982, 1019, 1023, 1111, 1136, 1180, 1196, 1206, 1208, 1243, 1284, 1289, 1327, 1333, 1354, 1391, 1439, 1449, 1475, 1511, 1515, 1520, 1562, 1565, 1590, 1594, 1635, 1646, 1655, 1660, 1664, 1667, 1696

HABITAT MANAGEMENT

34, 53, 201, 440, 1019, 1023, 1515, 1520, 1667, 1696

HABITAT

34, 53, 137, 147, 153, 201, 212, 551, 605, 628, 731, 747, 982, 1111, 1136, 1180, 1208, 1243, 1284, 1289, 1327, 1354, 1439, 1475, 1515, 1520, 1565, 1594, 1696

FORAGING BEHAVIOR

90, 137, 147, 153, 610, 1327, 1354, 1391, 1449, 1520, 1635, 1660

BREEDING, NESTING

1, 153, 201, 212, 416, 605, 610, 617, 731, 769, 809, 1019, 1196, 1243,1289, 1354, 1391, 1511, 1520, 1565, 1655

NEST AND ROOST TREES

440, 610, 1019, 1023, 1208, 1289, 1511, 1520, 1646

NEST BOXES AND HOUSES

440,610

BIOLOGY, ECOLOGY, LIFE HISTORY 351, 551, 610, 1136, 1327, 1439, 1449, 1515, 1520, 1635

RELATIONS WITH OTHER FAUNA

1391

TERRITORY

147, 1562, 1590

DISTRIBUTION, POPULATION DENSITY, STATUS 193, 212, 470, 551, 731, 747, 982, 1196, 1284, 1333, 1562, 1590, 1594, 1664

IDENTIFICATION, TAXONOMY 74, 610, 1196, 1206, 1208, 1243, 1284, 1289

NORTHERN THREE-TOED WOODPECKER, PICOIDES TRIDACTYLUS

SUMMARY

64, 65, 74, 90, 137, 147, 155, 201, 212, 236, 239, 351, 376, 440, 470, 486, 516, 551, 605, 617, 658, 659, 684, 693, 702, 731, 856, 872, 873, 874, 875, 928, 929, 1019, 1022, 1023, 1038, 1046, 1047, 1094, 1147, 1166, 1180, 1196, 1208, 1243, 1284, 1289, 1306, 1333, 1351, 1353, 1354, 1365, 1379, 1391, 1421, 1458, 1504, 1511, 1515, 1520, 1565, 1617, 1635, 1646, 1655, 1664, 1667, 1696

HABITAT MANAGEMENT

201, 236, 440, 486, 1019, 1022, 1046, 1047, 1515, 1520, 1667, 1696

HABITAT

137, 147, 201, 212, 236, 376, 486, 551, 605, 684, 731, 1038, 1046, 1047, 1094, 1166, 1180, 1208, 1243, 1284, 1289, 1353, 1354, 1421, 1504, 1515, 1520, 1565, 1617, 1696

FORAGING BEHAVIOR

64, 65, 90, 137, 147, 440, 658, 693, 856, 872, 873, 874, 875, 1353, 1354, 1365, 1379, 1391, 1458, 1520, 1635

BREEDING, NESTING

201, 212, 239, 516, 605, 617, 731, 928, 929, 1019, 1022, 1147, 1353, 1354, 1391, 1511, 1520, 1565, 1655

NEST AND ROOST TREES

440, 1019, 1022, 1023, 1147, 1208, 1290, 1351, 1511, 1520, 1646

NEST BOXES AND HOUSES

440

BIOLOGY, ECOLOGY, LIFE HISTORY 155, 239, 351, 551, 659, 872, 928, 1306, 1515, 1520, 1635

RELATIONS WITH OTHER FAUNA

929, 1391, 1458

TERRITORY

147, 658, 1458

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 470, 551, 684, 731, 1094, 1196, 1284, 1333, 1421, 1664 IDENTIFICATION, TAXONOMY 74, 1196, 1208, 1243, 1284, 1289

IVORY-BILLED WOODPECKER, CAMPEPHILUS PRINCIPALIS

SUMMARY

14, 90, 155, 354, 552, 586, 695, 945, 1196, 1243, 1284, 1354, 1500, 1582, 1583

HABITAT MANAGEMENT

354, 586

HABITAT

586, 695, 945, 1243, 1284, 1354

FORAGING BEHAVIOR

14, 90, 354, 695, 1354

BREEDING, NESTING

10, 695, 1196, 1243, 1354

NEST BOXES AND HOUSES

695

BIOLOGY, ECOLOGY, LIFE HISTORY

945, 1500

DISTRIBUTION, POPULATION DENSITY, STATUS

552, 1196, 1284, 1582, 1583

IDENTIFICATION, TAXONOMY

695, 1196, 1243, 1284

SULPHUR-BELLIED FLYCATCHER, MYIODYNASTES LUTEIVENTRIS

SUMMARY

115, 256, 617, 628, 1196, 1208, 1284, 1354, 1565

HABITAT

628, 1208, 1284, 1354, 1565

FORAGING BEHAVIOR

256, 1354

BREEDING, NESTING

617, 1196, 1354, 1565

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY

115

DISTRIBUTION, POPULATION DENSITY, STATUS

1196, 1284

IDENTIFICATION, TAXONOMY

1196, 1208, 1284

GREAT CRESTED FLYCATCHER, MYIARCHUS CRINITUS

SUMMARY

34, 36, 53, 57, 96, 115, 127, 181, 237, 256, 281, 313, 373, 374, 406, 438, 440, 524, 525, 551, 598, 605, 617, 642, 661, 743, 778, 859, 928, 945, 959, 985, 1051, 1059, 1102, 1136, 1196, 1208, 1243, 1252, 1253, 1283, 1284, 1289, 1290, 1329, 1345, 1354, 1397, 1463, 1485, 1515, 1545, 1596, 1625, 1647, 1664, 1678, 1686, 1708

HABITAT MANAGEMENT

34, 53, 237, 281, 313, 373, 406, 438, 440, 524, 598, 661, 1051, 1253, 1329, 1397, 1515, 1596, 1686

HABITAT

34, 36, 127, 181, 237, 373, 438, 551, 598, 605, 642, 743, 945, 1051, 1136, 1208, 1243, 1253, 1283, 1284, 1290, 1329, 1345, 1354, 1397, 1515, 1625

FORAGING BEHAVIOR

256, 440, 598, 985, 1329, 1354, 1485

BREEDING, NESTING

57, 127, 525, 598, 605, 617, 859, 928, 1059, 1102, 1196, 1243, 1290, 1354, 1545, 1596, 1708

NEST AND ROOST TREES

127, 281, 406, 440, 598, 1033, 1283, 1290, 1463, 1686

NEST BOXES AND HOUSES

281, 440

BIOLOGY, ECOLOGY, LIFE HISTORY

115, 551, 778, 928, 945, 1136, 1515, 1545, 1678

RELATIONS WITH OTHER FAUNA

96, 1708

TERRITORY

1329, 1596

DISTRIBUTION, POPULATION DENSITY, STATUS

374, 551, 778, 1196, 1289, 1664, 1678

IDENTIFICATION, TAXONOMY

1196, 1208, 1243, 1289, 1290

WIED'S CRESTED FLYCATCHER, MYIARCHUS TYRANNULUS

SUMMARY

115, 265, 272, 928, 1196, 1208, 1243, 1284, 1354, 1565, 1708

HABITAT

265, 272, 1208, 1243, 1284, 1354, 1565

FORAGING BEHAVIOR

265, 1354

BREEDING, NESTING

928, 1196, 1243, 1354, 1565, 1708

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY

115, 928

RELATIONS WITH OTHER FAUNA

1708

DISTRIBUTION, POPULATION DENSITY, STATUS

1196, 1284

IDENTIFICATION, TAXONOMY

1196, 1208, 1243, 1284

ASH-THROATED FLYCATCHER, MYIARCHUS CINERASCENS

SUMMARY

60, 93, 115, 149, 212, 265, 272, 400, 415, 503, 506, 512, 617, 627, 656, 695, 731, 921, 928, 945, 981, 991, 1167, 1196, 1208, 1243, 1284, 1326, 1353, 1354, 1504, 1520, 1565, 1654, 1670, 1697, 1708

HABITAT MANAGEMENT

400, 1520

HABITAT

60, 149, 212, 265, 272, 400, 415, 627, 695, 731, 921, 945, 981, 1167, 1208, 1243, 1284, 1326, 1353, 1354, 1504, 1520, 1565, 1654, 1670

FORAGING BEHAVIOR

60, 93, 149, 265, 695, 1167, 1326, 1353, 1354, 1520, 1565

BREEDING, NESTING

212, 503, 512, 617, 627, 695, 731, 928, 1196, 1243, 1353,

1354, 1520, 1565, 1708

NEST AND ROOST TREES

991, 1208, 1520

NEST BOXES AND HOUSES

BIOLOGY, ECOLOGY, LIFE HISTORY

115, 928, 945, 1326, 1520, 1697

RELATIONS WITH OTHER FAUNA

506, 1708

TERRITORY

627

DISTRIBUTION, POPULATION DENSITY, STATUS

212, 731, 921, 1196, 1284

IDENTIFICATION, TAXONOMY

695, 1196, 1208, 1243, 1284

OLIVACEOUS FLYCATCHER, MYIARCHUS **TUBERCULIFER**

SUMMARY

115, 400, 607, 617, 928, 1196, 1208, 1284, 1353, 1354, 1565,

HABITAT MANAGEMENT

400

HABITAT

400, 607, 1208, 1284, 1353, 1354, 1565

FORAGING BEHAVIOR

607, 1353, 1354

BREEDING, NESTING

617, 928, 1196, 1353, 1354, 1565, 1708

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY

115, 928

RELATIONS WITH OTHER FAUNA

DISTRIBUTION, POPULATION DENSITY, STATUS

1196, 1284

IDENTIFICATION, TAXONOMY

1196, 1208, 1284

WESTERN FLYCATCHER, EMPIDONAX DIFFICILIS

SUMMARY

50, 62, 93, 115, 212, 331, 376, 486, 617, 627, 684, 731, 738, 747, 843, 917, 928, 1038, 1094, 1116, 1167, 1196, 1208, 1284, 1326, 1354, 1504, 1565, 1654, 1663, 1664, 1697

HABITAT MANAGEMENT

50, 1663

HABITAT

62, 212, 376, 486, 627, 684, 731, 738, 747, 1038, 1094, 1167, 1208, 1284, 1326, 1354, 1504, 1565, 1654

FORAGING BEHAVIOR

93, 1167, 1326, 1354, 1697

BREEDING, NESTING

212, 331, 617, 627, 731, 843, 917, 928, 1116, 1196, 1354, 1565

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY

115, 928, 1326, 1697

TERRITORY

627

DISTRIBUTION, POPULATION DENSITY, STATUS 62, 212, 684, 731, 747, 1094, 1196, 1284, 1664 IDENTIFICATION, TAXONOMY

1196, 1208, 1284

VIOLET-GREEN SWALLOW, TACHYCINETA **THALASSINA**

SUMMARY

62, 91, 115, 201, 212, 269, 346, 376, 400, 401, 484, 486, 508, 551, 563, 617, 627, 684, 731, 747, 768, 920, 928, 944, 981, 1038, 1094, 1128, 1180, 1196, 1208, 1284, 1326, 1333, 1335, 1337, 1351, 1352, 1353, 1354, 1443, 1504, 1520, 1563, 1565, 1594, 1595, 1617, 1624, 1663, 1664, 1698

HABITAT MANAGEMENT 201, 400, 486, 1352, 1354, 1520, 1663

HABITAT

62, 201, 212, 346, 376, 400, 486, 551, 627, 684, 731, 747, 920, 944, 981, 1038, 1094, 1128, 1180, 1208, 1284, 1326, 1353, 1354, 1443, 1504, 1520, 1565, 1594, 1617, 1624, 1698

FORAGING BEHAVIOR

91, 944, 1326, 1353, 1354, 1520

BREEDING, NESTING

201, 212, 269, 401, 484, 563, 617, 627, 731, 768, 928, 1196, 1353, 1354, 1520, 1565, 1624

NEST AND ROOST TREES

1208, 1351, 1520

NEST BOXES AND HOUSES

BIOLOGY, ECOLOGY, LIFE HISTORY

115, 551, 928, 1326, 1520

RELATIONS WITH OTHER FAUNA

484

TERRITORY

627

DISTRIBUTION, POPULATION DENSITY, STATUS 62, 212, 346, 551, 684, 731, 747, 920, 1094, 1196, 1284, 1333, 1335, 1337, 1563, 1595, 1596, 1664

IDENTIFICATION, TAXONOMY 1196, 1208, 1284

TREE SWALLOW, IRIDOPROCNE BIOCOLOR

SUMMARY

34, 49, 51, 91, 115, 199, 201, 212, 222, 244, 251, 252, 253, 281, 376, 426, 432, 440, 451, 508, 551, 563, 598, 601, 602, 605, 617, 627, 641, 660, 695, 731, 738, 778, 869, 884, 920, 928, 938, 940, 945, 985, 991, 995, 996, 1019, 1022, 1023, 1046, 1047, 1070, 1094, 1111, 1127, 1128, 1136, 1144, 1166, 1167, 1180, 1189, 1196, 1206, 1208, 1221, 1243, 1284, 1290, 1292, 1322, 1325, 1327, 1329, 1333, 1337, 1353, 1354, 1402, 1443, 1479, 1495, 1510, 1515, 1520, 1563, 1565, 1596, 1639, 1642, 1643, 1644, 1656, 1663, 1664, 1667, 1698, 1700

HABITAT MANAGEMENT

34, 49, 201, 281, 440, 598, 1019, 1022, 1023, 1045, 1096, 1329, 1495, 1515, 1520, 1596, 1663, 1667

HABITAT

34, 201, 212, 376, 551, 598, 605, 627, 695, 731, 738, 920, 945, 1046, 1047, 1094, 1111, 1128, 1136, 1166, 1167, 1180, - 1208, 1243, 1290, 1327, 1329, 1353, 1354, 1402, 1443, 1495, 1515, 1520, 1565, 1698

FORAGING BEHAVIOR

91, 440, 598, 695, 869, 985, 1167, 1327, 1329, 1353, 1354, 1479, 1510, 1520, 1700

BREEDING, NESTING

51, 201, 212, 222, 244, 251, 252, 253, 426, 432, 451, 563, 598, 601, 605, 617, 627, 641, 660, 695, 731, 928, 938, 940, 995, 996, 1019, 1022, 1070, 1127, 1144, 1189, 1196, 1221, 1243, 1290, 1322, 1353, 59, 172, 180, 275, 580, 598, 605, 695, 1154, 1196, 1243, 1290, 1354, 1354, 1479, 1510, 1520, 1596, 1639, 1642, 1643

NEST AND ROOST TREES

281, 440, 508, 991, 1019, 1022, 1023, 1144, 1208, 1290, 1520

NEST BOXES AND HOUSES

281, 440, 695, 995, 1221

BIOLOGY, ECOLOGY, LIFE HISTORY

115, 251, 252, 432, 551, 601, 602, 660, 778, 884, 928, 945, 1136, 1292,1327, 1479, 1520

RELATIONS WITH OTHER FAUNA

251, 252, 426, 1221, 1510

TERRITORY

601, 627, 940, 1329, 1596, 1700

DISTRIBUTION, POPULATION DENSITY, STATUS 49, 199, 212, 551, 731, 778, 920, 1094, 1196, 1284, 1333, 1337, 1402, 1563, 1643, 1664

IDENTIFICATION, TAXONOMY

695, 1196, 1206, 1208, 1243, 1284, 1290

ROUGH-WINGED SWALLOW, STELGIDOPTERYX RUFICOLLIS

SUMMARY

91, 115, 212, 265, 551, 605, 695, 731, 747, 869, 920, 928, 945, 952, 1128, 1136, 1166, 1167, 1180, 1196, 1206, 1208, 1243, 1284, 1290, 1508, 1520, 1563, 1565, 1594, 1595, 1698 HABITAT

212, 265, 551, 605, 695, 731, 747, 920, 945, 1128, 1136, 1166, 1167, 1180, 1208, 1243, 1284, 1290, 1508, 1520, 1559, 1594,

FORAGING BEHAVIOR

91, 265, 695, 869, 1167, 1520

BREEDING, NESTING

212, 605, 695, 731, 928, 952, 1196, 1243, 1290, 1520, 1565

NEST AND ROOST TREES

1290, 1520

NEST BOXES AND HOUSES

693

BIOLOGY, ECOLOGY, LIFE HISTORY

115, 551, 928, 945, 952, 1136, 1520

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 551, 731, 747, 920, 1196, 1284, 1563, 1594, 1595

IDENTIFICATION, TAXONOMY

695, 1196, 1206, 1208, 1243, 1284, 1290

PURPLE MARTIN, PROGNE SUBIS

SUMMARY

19, 110, 201, 207, 212, 248, 325, 332, 361, 440, 486, 551, 598, 605, 617, 653, 684, 695, 731, 750, 751, 754, 778, 851, 928, 944, 945, 981, 1003, 1046, 1047, 1124, 1136, 1150, 1167, 1196, 1206, 1208, 1231, 1243, 1284, 1290, 1353, 1354, 1402, 1443, 1507, 1508, 1548, 1549, 1565, 1596, 1623, 1668, 1670, 1671

HABITAT MANAGEMENT

201, 440, 486, 598, 1046, 1047, 1509, 1597

HABITAT

201, 212, 486, 551, 598, 605, 684, 695, 731, 944, 945, 981, 1046, 1047, 1136, 1167, 1208, 1243, 1284, 1290, 1353, 1354, 1402, 1508, 1565, 1670

FORAGING BEHAVIOR

440, 598, 695, 750, 754, 944, 1150, 1167, 1353, 1354, 1443, 1549

BREEDING, NESTING

19, 110, 201, 207, 212, 248, 325, 332, 598, 605, 617, 653, 695, 731, 751, 928, 1124, 1150, 1196, 1231, 1243, 1290, 1353, 1354, 1443, 1507, 1548, 1549, 1565, 1596, 1623, 1671

NEST AND ROOST TREES

440, 1208, 1290

NEST BOXES AND HOUSES

440, 695

BIOLOGY, ECOLOGY, LIFE HISTORY 361, 551, 778, 851, 928, 945, 1136

TERRITORY

19, 361, 751, 1596

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 551, 684, 754, 778, 1003, 1196, 1284, 1402, 1668 IDENTIFICATION, TAXONOMY

695, 1196, 1206, 1208, 1243, 1284, 1290

BLACK-CAPPED CHICKADEE, PARUS ATRICAPILLUS

SUMMARY

10, 32, 53, 62, 77, 127, 156, 180, 181, 198, 201, 212, 229, 230, 237, 281, 293, 304, 336, 376, 382, 383, 395, 438, 440, 441, 460, 475, 482, 524, 525, 539, 551, 587, 598, 605, 609, 617, 628, 662, 731, 738, 747, 778, 827, 850, 910, 921, 928, 934, 985, 991, 1015, 1019, 1023, 1044, 1046, 1047, 1049, 1073, 1094, 1096, 1128, 1134, 1136, 1151, 1152, 1153, 1166, 1180, 1196, 1206, 1208, 1243, 1250, 1253, 1258, 1280, 1284, 1290, 1301, 1329, 1353, 1354, 1397, 1421, 1430, 1432, 1439, 1443, 1461, 1463, 1466, 1475, 1488, 1489, 1500, 1515, 1520, 1523, 1534, 1535, 1565, 1594, 1596, 1621, 1625, 1632, 1663, 1664, 1667, 1678, 1698, 1708

HABITAT MANAGEMENT

53, 201, 237, 281, 304, 438, 440, 524, 598, 662, 1019, 1023, 1046, 1047, 1253, 1329, 1397, 1515, 1520, 1523, 1596, 1663, 1667

HABITAT

53, 127, 181, 201, 212, 237, 304, 376, 438, 551, 598, 605, 628, 662, 731, 738, 747, 850, 921, 1044, 1046, 1047, 1094, 1128, 1136, 1166, 1180, 1208, 1243, 1253, 1258, 1284, 1290, 1329, 1353, 1354, 1397, 1421, 1439, 1443, 1475, 1515, 1520, 1523, 1565, 1594, 1625, 1698

FORAGING BEHAVIOR

10, 156, 180, 229, 230, 293, 395, 440, 598, 827, 850, 934, 985, 1096, 1153, 1258, 1329, 1353, 1354, 1461, 1489, 1520

BREEDING, NESTING

10, 127, 156, 181, 201, 212, 229, 230, 336, 382, 383, 460, 475, 539, 598, 605, 617, 731, 850, 928, 1019, 1096, 1134, 1151, 1152, 1153, 1196, 1243, 1250, 1290, 1353, 1354, 1430, 1432, 1461, 1466, 1488, 1489, 1520, 1534, 1535, 1565, 1596, 1621, 1708

NEST AND ROOST TREES

10, 127, 181, 281, 440, 598, 991, 1019, 1023, 1208, 1290, 1463, 1520

NEST BOXES AND HOUSES

10, 281, 440

BIOLOGY, ECOLOGY, LIFE HISTORY

10, 77, 475, 482, 525, 551, 778, 910, 928, 1015, 1049, 1136, 1151, 1153, 1280, 1430, 1439, 1500, 1515, 1520, 1632, 1678

RELATIONS WITH OTHER FAUNA

539, 827, 934, 1073, 1708

TERRITORY

77, 180, 587, 609, 910, 1151, 1329, 1466, 1596

DISTRIBUTION, POPULATION DENSITY, STATUS 32, 62, 198, 212, 441, 551, 731, 747, 778, 910, 921, 1044, 1094, 1196, 1258, 1284, 1421, 1594, 1664, 1678

IDENTIFICATION, TAXONOMY 1196, 1206, 1208, 1243, 1284, 1290

CAROLINA CHICKADEE, PARUS CAROLINENSIS

SUMMARY

22, 35, 36, 59, 96, 172, 179, 180, 275, 281, 313, 373, 374, 430, 580, 586, 598, 605, 662, 695, 778, 945, 959, 985, 1001, 1051, 1154, 1196, 1206, 1243, 1284, 1290, 1328, 1329, 1354, 1397, 1433, 1472, 1485, 1501, 1515, 1647, 1664, 1678, 1686

HABITAT MANAGEMENT

22, 281, 313, 373, 438, 586, 598, 662, 959, 1051, 1329, 1397, 1515, 1647, 1686

HABITAT

35, 36, 313, 373, 438, 586, 598, 605, 662, 695, 945, 1051, 1243, 1284, 1329, 1354, 1397, 1515

FORAGING BEHAVIOR

180, 598, 695, 985, 1001, 1328, 1354, 1485

BREEDING, NESTING

59, 172, 180, 275, 580, 598, 605, 695, 1154, 1196, 1243, 1290, 1354

NEST AND ROOST TREES

59, 180, 281, 580, 598, 1686

NEST BOXES AND HOUSES

281, 695

BIOLOGY, ECOLOGY, LIFE HISTORY 179, 778, 945, 1433, 1501, 1515, 1678

RELATIONS WITH OTHER FAUNA

96, 275, 1472

TERRITORY

180, 1329

DISTRIBUTION, POPULATION DENSITY, STATUS

374, 778, 1196, 1284, 1664, 1678

IDENTIFICATION, TAXONOMY

695, 1196, 1206, 1243, 1284

MEXICAN CHICKADEE, PARUS SCLATERI

SUMMARY

62, 617, 928, 1208, 1284, 1353, 1354, 1565

HABITAT

1208, 1284, 1353, 1354, 1565

FORAGING BEHAVIOR

1353, 1354

BREEDING, NESTING

617, 928, 1353, 1354, 1565

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY 928

DISTRIBUTION, POPULATION DENSITY, STATUS 62, 1284

IDENTIFICATION, TAXONOMY 1208, 1284

MOUNTAIN CHICKADEE, PARUS GAMBELI

SUMMARY

32, 49, 62, 65, 123, 144, 153, 193, 201, 212, 269, 316, 317, 339, 383, 395, 400, 484, 508, 607, 619, 684, 731, 747, 778, 848, 921, 928, 944, 982, 985, 991, 1019, 1023, 1044, 1073, 1094, 1166, 1180, 1208, 1258, 1284, 1318, 1326, 1327, 1333, 1351, 1353, 1354, 1402, 1421, 1439, 1443, 1504, 1513, 1520, 1565, 1617, 1664, 1667

HABITAT MANAGEMENT

49, 201, 400, 1019, 1023, 1520, 1667

HABITAT

62, 123, 153, 201, 212, 400, 607, 684, 731, 747, 848, 921, 944, 982, 1044, 1094, 1166, 1180, 1208, 1258, 1284, 1326, 1327, 1353, 1354, 1402, 1421, 1439, 1443, 1504, 1520, 1565, 1617

FORAGING BEHAVIOR

65, 144, 153, 269, 316, 317, 395, 607, 944, 985, 1258, 1318, 1326, 1327, 1353, 1354, 1513, 1520

BREEDING, NESTING

153, 201, 212, 339, 383, 484, 619, 731, 928, 1019, 1353, 1354, 1520, 1565

NEST AND ROOST TREES

991, 1019, 1023, 1208, 1351, 1520

NEST BOXES AND HOUSES

508

BIOLOGY, ECOLOGY, LIFE HISTORY

778, 928, 1326, 1327, 1439, 1520

RELATIONS WITH OTHER FAUNA

484, 1073, 1318

DISTRIBUTION, POPULATION DENSITY, STATUS 32, 49, 62, 193, 212, 684, 731, 747, 778, 921, 982, 1044, 1094, 1258, 1284, 1333, 1402, 1421, 1664

IDENTIFICATION, TAXONOMY 1208, 1284

GRAY-HEADED CHICKADEE, PARUS CINCTUS

SUMMARY

1208, 1284, 1314, 1354, 1565

HABITAT

1208

FORAGING BEHAVIOR

1354

BREEDING, NESTING

1314, 1565

NEST AND ROOST TREES

1208

DISTRIBUTION, POPULATION DENSITY, STATUS

IDENTIFICATION, TAXONOMY 1208, 1284

BOREAL CHICKADEE, PARUS HUDSONICUS

SUMMARY

52, 304, 440, 551, 605, 731, 935, 1034, 1136, 1180, 1196, 1208, 1243, 1284, 1290, 1354, 1515, 1565, 1664

HABITAT MANAGEMENT

304, 440

HABITAT

304, 551, 605, 731, 1136, 1180, 1208, 1243, 1284, 1290, 1354, 1515, 1565

FORAGING BEHAVIOR

440, 1354

BREEDING, NESTING

605, 731, 935, 1034, 1196, 1243, 1290, 1354, 1565

NEST AND ROOST TREES

440, 1208, 1290

NEST BOXES AND HOUSES

440

BIOLOGY, ECOLOGY, LIFE HISTORY

52, 551, 1136, 1515

DISTRIBUTION, POPULATION DENSITY, STATUS

551, 731, 1196, 1284, 1664

IDENTIFICATION, TAXONOMY

1196, 1208, 1243, 1284, 1290

CHESTNUT-BACKED CHICKADEE, PARUS RUFESCENS

SUMMARY

32, 201, 212, 556, 617, 731, 747, 985, 1017, 1019, 1023, 1044, 1046, 1047, 1069, 1167, 1180, 1208, 1284, 1298, 1354, 1439, 1488, 1489, 1520,1565, 1594, 1596, 1663, 1664, 1667

HABITAT MANAGEMENT

201, 1019, 1023, 1046, 1047, 1520, 1596, 1663, 1667

HABITAT

201, 212, 731, 747, 1044, 1047, 1167, 1180, 1208, 1284, 1298, 1354, 1439, 1520, 1565, 1594

FORAGING BEHAVIOR

985, 1069, 1167, 1298, 1354, 1489, 1520

BREEDING, NESTING

201, 212, 617, 731, 1017, 1019, 1354, 1488, 1489, 1520, 1565, 1596

NEST AND ROOST TREES

1019, 1033, 1208, 1520

BIOLOGY, ECOLOGY, LIFE HISTORY

1439, 1520

TERRITORY

1596

DISTRIBUTION, POPULATION DENSITY, STATUS

32, 212, 556, 731, 747, 1017, 1044, 1284, 1594, 1664

IDENTIFICATION, TAXONOMY

1208, 1284

TUFTED TITMOUSE, PARUS BICOLOR

SUMMARY

22, 35, 36, 57, 59, 116, 128, 174, 181, 237, 271, 281, 313, 373, 374, 381, 398, 434, 438, 440, 524, 526, 551, 580, 586, 598, 605, 662, 695, 723, 738, 778, 905, 945, 959, 985, 1051, 1058, 1196, 1206, 1218, 1243, 1244, 1253, 1268, 1284, 1285, 1290, 1329, 1354, 1397, 1415, 1463, 1485, 1515, 1591, 1619, 1647, 1650, 1664, 1678, 1686, 1708

HABITAT MANAGEMENT

22, 237, 281, 313, 373, 438, 440, 524, 586, 598, 662, 959, 1051, 1253, 1329, 1397, 1515, 1647, 1686

HABITAT

35, 36, 181, 237, 313, 373, 438, 551, 586, 598, 605, 662, 695, 738, 945, 1051, 1243, 1253, 1284, 1285, 1290, 1329, 1354, 1397, 1515

FORAGING BEHAVIOR

128, 440, 598, 695, 985, 1329, 1354, 1485, 1650

BREEDING, NESTING

57, 59, 174, 381, 398, 580, 598, 605, 695, 905, 1058, 1196, 1243, 1268, 1290, 1354, 1619, 1708

NEST AND ROOST TREES

59, 281, 440, 580, 598, 1285, 1290, 1463, 1686

NEST BOXES AND HOUSES

281, 440, 695

BIOLOGY, ECOLOGY, LIFE HISTORY

116, 551, 723, 778, 905, 945, 1218, 1415, 1515, 1591, 1678

RELATIONS WITH OTHER FAUNA

434, 1708

TERRITORY

271, 1329

DISTRIBUTION, POPULATION DENSITY, STATUS 374, 524, 551, 778, 1196, 1244, 1284, 1664, 1678

IDENTIFICATION, TAXONOMY

695, 1196, 1206, 1243, 1285, 1290

PLAIN TITMOUSE, PARUS INORNATUS

SUMMARY

60, 116, 212, 380, 617, 921, 928, 985, 1196, 1208, 1249, 1284, 1326, 1353, 1354, 1379, 1380, 1504, 1565, 1596, 1697, 1708

HABITAT MANAGEMENT

1379, 1596

HABITAT

60, 212, 921, 1208, 1284, 1326, 1353, 1354, 1504, 1565

FORAGING BEHAVIOR

60, 380, 985, 1326, 1353, 1354, 1697

BREEDING, NESTING

212, 380, 617, 928, 1196, 1249, 1353, 1354, 1565, 1596, 1708

NEST AND ROOST TREES

1208, 1379

BIOLOGY, ECOLOGY, LIFE HISTORY

116, 928, 1326, 1697

RELATIONS WITH OTHER FAUNA

1708

TERRITORY

380, 1596

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 921, 1196, 1284

IDENTIFICATION, TAXONOMY

1196, 1208, 1284

BRIDLED TITMOUSE, PARUS WOLLWEBERI

SUMMARY

60, 116, 123, 617, 928, 1196, 1208, 1284, 1353, 1354, 1565, 1708

HABITAT

60, 123, 1208, 1284, 1353, 1354, 1565

FORAGING BEHAVIOR

60, 1353, 1354

BREEDING, NESTING

617, 928, 1196, 1353, 1354, 1565, 1708

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY 116, 928

RELATIONS WITH OTHER FAUNA 1708

DISTRIBUTION, POPULATION DENSITY, STATUS 1196, 1284

IDENTIFICATION, TAXONOMY 1196, 1208, 1284

WHITE-BREASTED NUTHATCH, SITTA CAROLINENSIS

SUMMARY

11, 16, 17, 18, 22, 32, 33, 34, 36, 40, 57, 60, 62, 117, 144, 153, 181, 193, 199, 201, 212, 229, 230, 237, 265, 281, 313, 372, 373, 376, 395, 400, 438, 440, 471, 486, 508, 524, 551, 598, 605, 607, 610, 617, 624, 662, 684, 695, 728, 730, 731, 747, 778, 810, 815, 816, 825, 898, 928, 944, 945, 960, 962, 982, 985, 1026, 1044, 1046, 1047, 1051, 1067, 1094, 1136, 1166, 1196, 1206, 1208, 1243, 1253, 1255, 1258, 1260, 1274, 1283, 1284, 1289, 1326, 1329, 1353, 1354, 1397, 1402, 1421, 1428, 1431, 1458, 1463, 1504, 1515, 1520, 1560, 1565, 1598, 1647, 1657, 1664, 1667, 1678, 1686, 1708

HABITAT MANAGEMENT

22, 34, 201, 237, 281, 313, 373, 400, 438, 440, 486, 524, 598, 662, 962, 1046, 1047, 1051, 1253, 1329, 1397, 1515, 1520, 1647, 1667, 1686

HABITAT

34, 36, 60, 62, 153, 181, 201, 212, 237, 265, 313, 373, 376, 400, 438,486, 551, 598, 605, 662, 684, 695, 730, 731, 747, 944, 945, 982, 1044, 1046, 1047, 1051, 1094, 1136, 1166, 1208, 1243, 1253, 1258, 1283, 1284, 1289, 1326, 1329, 1353, 1354, 1397, 1402, 1421, 1431, 1504, 1520, 1565

FORAGING BEHAVIOR

11, 16, 33, 60, 144, 153, 229, 230, 265, 395, 440, 598, 610, 695, 825, 944, 985, 1258, 1329, 1353, 1354, 1458, 1520, 1560 BREEDING, NESTING

11, 16, 17, 18, 40, 57, 153, 201, 212, 229, 230, 372, 598, 605, 610, 617, 624, 695, 728, 731, 810, 815, 816, 928, 960, 1067, 1196, 1243, 1255, 1260, 1274, 1289, 1353, 1354, 1520, 1560, 1565, 1598, 1708

NEST AND ROOST TREES

11, 281, 440, 610, 815, 1208, 1260, 1283, 1289, 1463, 1520, 1686

NEST BOXES AND HOUSES

11, 281, 440, 508, 610, 695

BIOLOGY, ECOLOGY, LIFE HISTORY

11, 117, 471, 551, 610, 778, 928, 945, 1026, 1136, 1326, 1428, 1431, 1515, 1520, 1657, 1678

RELATIONS WITH OTHER FAUNA

11, 1458, 1708

TERRITORY

16, 898, 1329, 1458

DISTRIBUTION, POPULATION DENSITY, STATUS 32, 62, 193, 199, 212, 551, 525, 730, 731, 747, 778, 982, 1044, 1196, 1258, 1284, 1402, 1421, 1678

IDENTIFICATION, TAXONOMY

610, 695, 1196, 1206, 1208, 1243, 1284, 1289

RED-BREASTED NUTHATCH, SITTA CANADENSIS

SUMMARY

16, 32, 33, 34, 49, 53, 75, 117, 123, 151, 153, 178, 201, 211, 212, 237, 281, 304, 346, 348, 350, 358, 376, 395, 438, 440,

455, 486, 508, 551, 564, 598, 605, 607, 610, 617, 628, 662, 684, 695, 730, 731, 747, 778, 817, 820, 825, 827, 921, 928, 945, 982, 985, 991, 1019, 1022, 1023, 1026, 1038, 1044, 1046, 1047, 1051, 1054, 1069, 1089, 1090, 1093, 1094, 1111, 1136, 1166, 1167, 1180, 1196, 1206, 1208, 1243, 1258, 1259, 1260, 1284, 1289, 1326, 1327, 1329, 1333, 1351, 1353, 1354, 1366, 1397, 1402, 1421, 1428, 1431, 1440, 1443, 1458, 1475, 1504, 1515, 1520, 1565, 1594, 1624, 1663, 1664, 1667, 1669, 1686, 1697, 1698, 1708

HABITAT MANAGEMENT

34, 49, 53, 201, 237, 281, 304, 438, 440, 486, 598, 662, 1019, 1022, 1023, 1046, 1047, 1051, 1329, 1397, 1515, 1520, 1663, 1667, 1686

HABITAT

34, 53, 123, 151, 201, 237, 307, 346, 376, 438, 486, 551, 598, 605, 607, 628, 662, 684, 695, 730, 731, 747, 921, 945, 982, 1038, 1044, 1046, 1051, 1094, 1111, 1136, 1166, 1167, 1180, 1208, 1243, 1258, 1284, 1289, 1326, 1327, 1329, 1353, 1354, 1397, 1402, 1421, 1431, 1443, 1475, 1504, 1515, 1520, 1565, 1594, 1624, 1698

FORAGING BEHAVIOR

16, 33, 151, 395, 440, 598, 607, 610, 695, 825, 827, 985, 1069, 1167, 1258, 1326, 1327, 1329, 1353, 1354, 1458, 1520, 1697

BREEDING, NESTING

16, 151, 211, 212, 350, 455, 564, 598, 605, 610, 617, 695, 731, 817, 820, 928, 991, 1022, 1054, 1089, 1090, 1093, 1196, 1243, 1259, 1260, 1289, 1353, 1354, 1366, 1520, 1565, 1624, 1669, 1708

NEST AND ROOST TREES

281, 440, 610, 817, 991, 1019, 1022, 1208, 1260, 1289, 1351, 1520, 1686

NEST BOXES AND HOUSES

281, 440, 508, 610, 695

BIOLOGY, ECOLOGY, LIFE HISTORY 75, 117, 551, 610, 778, 928, 945, 1026, 1136, 1259, 1326, 1327, 1428, 1431, 1515, 1520, 1697

RELATIONS WITH OTHER FAUNA 358, 827, 1458, 1708

TERRITORY

16, 1329, 1458

DISTRIBUTION, POPULATION DENSITY, STATUS 32, 49, 212, 551, 684, 730, 731, 747, 778, 921, 982, 1044, 1094, 1196, 1258, 1284, 1333, 1402, 1421, 1440, 1594 IDENTIFICATION, TAXONOMY

75, 211, 348, 610, 695, 1196, 1206, 1208, 1243, 1284, 1289

BROWN-HEADED NUTHATCH, SITTA PUSILLA

SUMMARY

59, 117, 281, 395, 406, 438, 504, 586, 605, 668, 695, 778, 945, 985, 1051, 1142, 1145, 1158, 1196, 1206, 1243, 1260, 1284, 1354, 1618, 1664, 1686, 1708

HABITAT MANAGEMENT

281, 406, 438, 586, 1051, 1686

HABITAT

438, 586, 605, 695, 945, 1051, 1284, 1354

FORAGING BEHAVIOR

395, 695, 985, 1354

BREEDING, NESTING

59, 504, 605, 668, 695, 1145, 1158, 1196, 1243, 1260, 1354, 1708

NEST AND ROOST TREES 59, 281, 406, 1260, 1686

NEST BOXES AND HOUSES 281, 695

BIOLOGY, ECOLOGY, LIFE HISTORY 117, 778, 945, 1142

RELATIONS WITH OTHER FAUNA

DISTRIBUTION, POPULATION DENSITY, STATUS 778, 1196, 1284, 1664

IDENTIFICATION, TAXONOMY 695, 1196, 1206, 1243, 1284

PYGMY NUTHATCH, SITTA PYGMAEA

SUMMARY

32, 33, 60, 62, 117, 123, 143, 144, 153, 193, 201, 212, 376, 395, 400, 486, 508, 520, 617, 684, 731, 747, 778, 857, 928, 944, 985, 991, 1026, 1038, 1044, 1094, 1142, 1167, 1196, 1208, 1260, 1284, 1326, 1335, 1337, 1351, 1352, 1353, 1354, 1402, 1421, 1439, 1504, 1520, 1565, 1617, 1663, 1664, 1667, 1697, 1708

HABITAT MANAGEMENT

201, 400, 486, 1352, 1520, 1663, 1667

HABITAT

60, 62, 123, 153, 201, 212, 376, 400, 486, 684, 731, 747, 944, 1038, 1044, 1094, 1167, 1208, 1284, 1326, 1353, 1354, 1402, 1421, 1439, 1504, 1520, 1565, 1617

FORAGING BEHAVIOR

33, 60, 144, 153, 395, 944, 985, 1167, 1326, 1353, 1354, 1520, 1697

BREEDING, NESTING

143, 153, 201, 212, 520, 617, 731, 857, 928, 1196, 1260, 1353, 1354, 1520, 1565, 1708

NEST AND ROOST TREES

991, 1208, 1260, 1351, 1520

NEST BOXES AND HOUSES 508 BIOLOGY, ECOLOGY, LIFE HISTORY

117, 778, 928, 1026, 1142, 1326, 1439, 1520, 1697

RELATIONS TO OTHER FAUNA

DISTRIBUTION, POPULATION DENSITY, STATUS 32, 62, 193, 212, 684, 731, 747, 778, 1044, 1093, 1196, 1284, 1335, 1337, 1402, 1421, 1664

IDENTIFICATION, TAXONOMY 1196, 1208, 1284

BROWN CREEPER, CERTHIA FAMILIARIS

SUMMARY

32, 46, 53, 60, 123, 129, 131, 153, 161, 175, 182, 198, 212, 249, 250, 265, 272, 282, 304, 326, 327, 340, 376, 400, 415, 438, 440, 486, 551, 580, 582, 605, 607, 610, 617, 662, 684, 695, 731, 747, 777, 778, 916, 928, 944, 945, 982, 985, 991, 1016, 1019, 1022, 1023, 1038, 1046, 1047, 1048, 1094, 1106, 1111, 1136, 1166, 1167, 1180, 1194, 1196, 1206, 1208, 1243, 1267, 1271, 1284, 1290, 1326, 1327, 1329, 1333, 1351, 1352, 1353, 1354, 1397, 1402, 1407, 1421, 1439, 1443, 1504, 1515, 1520, 1561, 1565, 1594, 1606, 1612, 1663, 1664, 1667, 1678, 1697, 1698

HABITAT MANAGEMENT

53, 282, 304, 400, 438, 440, 486, 662, 1019, 1022, 1023, 1046, 1047, 1327, 1352, 1397, 1515, 1520, 1663, 1667

HABITAT

53, 60, 123, 153, 212, 265, 272, 304, 376, 400, 415, 438, 486, 605, 607, 662, 684, 695, 731, 747, 944, 945, 982, 1038, 1046, 1047, 1094, 1111, 1136, 1166, 1167, 1180, 1194, 1208, 1243, 1267, 1284, 1290, 1326, 1327, 1329, 1353, 1354, 1397, 1402, 1421, 1439, 1443, 1504, 1515, 1520, 1565, 1554, 1698

FORAGING BEHAVIOR

46, 153, 265, 326, 440, 607, 610, 695, 944, 985, 1167, 1194, 1267, 1326, 1327, 1329, 1353, 1354, 1520, 1697

BREEDING, NESTING

129, 131, 153, 161, 175, 182, 212, 249, 250, 326, 327, 340, 580, 582, 605, 610, 617, 695, 731, 777, 916, 928, 1016, 1019, 1022, 1048, 1194, 1196, 1243, 1271, 1290, 1353, 1354, 1407, 1520, 1561, 1565, 1606, 1612

NEST AND ROOST TREES

282, 326, 440, 610, 991, 1019, 1022, 1023, 1208, 1351, 1520 NEST BOXES AND HOUSES

282, 440, 610, 695

BIOLOGY, ECOLOGY, LIFE HISTORY

326, 551, 610, 778, 928, 945, 1016, 1136, 1326, 1327, 1439, 1515, 1520, 1678, 1697

DISTRIBUTION, POPULATION DENSITY, STATUS 198, 212, 551, 684, 731, 747, 778, 982, 1094, 1106, 1196, 1267, 1284, 1333, 1402, 1421, 1594, 1664, 1678

IDENTIFICATION, TAXONOMY 610, 695, 1196, 1206, 1208, 1243, 1284, 1290

HOUSE WREN, TROGLODYTES AEDON

SUMMARY

32, 53, 60, 62, 68, 69, 80, 117, 127, 153, 181, 197, 190, 201, 212, 237, 265, 268, 272, 292, 319, 346, 360, 376, 395, 400, 440, 472, 486, 506, 508, 545, 551, 598, 605, 611, 617, 623, 655, 661, 684, 695, 731, 738, 747, 772, 773, 778, 920, 928, 945, 987, 995, 1010, 1011, 1019, 1023, 1024, 1038, 1044, 1045, 1087, 1094, 1136, 1156, 1166, 1196, 1206, 1208, 1217, 1243, 1258, 1282, 1284, 1286, 1290, 1326, 1327, 1329, 1351, 1352, 1353, 1354, 1356, 1370, 1371, 1397, 1443, 1463, 1492, 1504, 1508, 1515, 1516, 1520, 1523, 1524, 1565, 1566, 1594, 1596, 1616, 1617, 1625, 1654, 1660, 1663, 1664, 1667, 1678, 1698, 1707

HABITAT MANAGEMENT

53, 80, 201, 237, 400, 440, 486, 598, 1019, 1023, 1024, 1258, 1329, 1352, 1397, 1508, 1515, 1520, 1523, 1596, 1663, 1667 HABITAT

53, 60, 62, 127, 153, 181, 201, 212, 237, 265, 272, 346, 376, 400,486, 551, 598, 605, 684, 695, 731, 738, 747, 920, 945, 1038, 1044, 1094, 1136, 1156, 1208, 1243, 1282, 1284, 1290, 1326, 1327, 1329, 1353, 1354, 1397, 1565, 1504, 1508, 1515, 1520, 1523, 1565, 1594, 1617, 1625, 1654, 1698, 1707

FORAGING BEHAVIOR

60, 153, 265, 360, 395, 440, 598, 695, 1258, 1326, 1327, 1329, 1353, 1354, 1520

BREEDING, NESTING

68, 69, 127, 153, 197, 201, 212, 268, 292, 319, 472, 506, 545, 598, 605, 611, 617, 623, 655, 661, 695, 731, 772, 773, 928, 995, 1010, 1011, 1019, 1024, 1045, 1156, 1196, 1217, 1243, 1286, 1290, 1353, 1354, 1356, 1371, 1492, 1516, 1520, 1524, 1565, 1596, 1616, 1707

NEST AND ROOST TREES

127, 440, 1019, 1023, 1208, 1282, 1290, 1351, 1463, 1520, 1707

NEST BOXES AND HOUSES

440, 508, 695, 995, 1010, 1707

BIOLOGY, ECOLOGY, LIFE HISTORY

117, 551, 778, 928, 945, 987, 1087, 1136, 1326, 1327, 1370, 1515, 1520, 1566, 1678

RELATIONS WITH OTHER FAUNA

197, 268, 319, 506, 1616, 1707

TERRITORY

1156, 1329, 1596

DISTRIBUTION, POPULATION DENSITY, STATUS 32, 62, 190, 212, 346, 551, 684, 731, 747, 778, 920, 1044, 1094, 1196, 1258, 1284, 1594, 1664, 1678

IDENTIFICATION, TAXONOMY

695, 1196, 1206, 1208, 1243, 1284, 1290

BROWN-THROATED WREN, TROGLODYTES BRUNNEICOLLIS

SUMMARY

117, 1196, 1208, 1284, 1353, 1354

HABITAT

1208, 1284, 1353, 1354

FORAGING BEHAVIOR

1353, 1354

BREEDING, NESTING

1196, 1353, 1354

NEST AND ROOST TREES

1353, 1354

BIOLOGY, ECOLOGY, LIFE HISTORY

117

DISTRIBUTION, POPULATION DENSITY, STATUS

1196, 1284

IDENTIFICATION, TAXONOMY

1196, 1208, 1284

WINTER WREN, TROGLODYTES TROGLODYTES

SUMMARY

43, 53, 117, 167, 201, 212, 264, 304, 395, 456, 507, 551, 577, 580, 605, 607, 617, 628, 662, 695, 731, 747, 763, 764, 928, 945, 982, 987, 1030, 1046, 1047, 1069, 1087, 1136, 1166, 1167, 1180, 1196, 1206, 1208, 1284, 1285, 1329, 1353, 1354,

1439, 1475, 1515, 1565, 1594, 1596, 1634, 1663, 1664 HABITAT MANAGEMENT

53, 201, 304, 577, 662, 1046, 1047, 1329, 1515, 1596, 1663

53, 201, 212, 304, 456, 551, 577, 605, 607, 628, 662, 695, 731, 747, 945, 982, 1046, 1047, 1136, 1166, 1167, 1180, 1208, 1284, 1329, 1353, 1354, 1439, 1475, 1515, 1565

FORAGING BEHAVIOR

264, 395, 607, 695, 1069, 1167, 1329, 1353, 1354

BREEDING, NESTING

201, 212, 264, 580, 605, 617, 695, 731, 763, 764, 928, 1030, 1196, 1285, 1353, 1354, 1565, 1596, 1634

NEST AND ROOST TREES

580, 1208

NEST BOXES AND HOUSES

695

BIOLOGY, ECOLOGY, LIFE HISTORY

43, 117, 507, 551, 928, 245, 987, 1087, 1136, 1439, 1515

TERRITORY

264, 1329, 1596

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 456, 551, 731, 747, 982, 1196, 1203, 1284, 1594, 1664 IDENTIFICATION, TAXONOMY 695, 1196, 1206, 1208, 1284

BEWICK'S WREN, THRYOMANES BEWICKII

SUMMARY

60, 117, 201, 265, 272, 415, 551, 598, 605, 617, 657, 695, 731, 738, 901, 928, 945, 1046, 1047, 1065, 1167, 1196, 1206, 1208, 1243, 1284, 1290, 1327, 1353, 1354, 1492, 1515, 1528, 1539, 1565, 1654, 1663, 1664, 1697, 1708

HABITAT MANAGEMENT

201, 598, 1046, 1047, 1515, 1663

HABITAT

60, 201, 265, 272, 415, 551, 598, 605, 695, 731, 738, 945, 1047, 1065, 1167, 1208, 1243, 1284, 1290, 1327, 1353, 1354, 1515, 1565, 1654

FORAGING BEHAVIOR

60, 265, 598, 695, 1065, 1167, 1327, 1353, 1354, 1697

BREEDING, NESTING

901, 598, 605, 617, 657, 695, 731, 901, 928, 1065, 1196, 1243, 1290, 1353, 1354, 1528, 1539, 1565, 1708

NEST AND ROOST TREES

1208, 1290

NEST BOXES AND HOUSES

695

BIOLOGY, ECOLOGY, LIFE HISTORY 117, 551, 928, 945, 1327, 1515, 1697

RELATIONS WITH OTHER FAUNA

1709

TERRITORY

1065

DISTRIBUTION, POPULATION DENSITY, STATUS

551, 731, 1196, 1284, 1664

IDENTIFICATION, TAXONOMY 1196, 1208, 1243, 1290, 1539

CAROLINA WREN, THRYOTHORUS LUDOVICIANUS

SUMMARY

22, 35, 36, 117, 181, 190, 281, 313, 373, 374, 393, 438, 524, 538, 547, 551, 580, 598, 605, 646, 662, 695, 749, 778, 845, 903, 904, 907, 928, 945, 959, 985, 987, 1051, 1087, 1130, 1196, 1206, 1208, 1243, 1283, 1284, 1290, 1329, 1354, 1397, 1472, 1492, 1515, 1588, 1647, 1686, 1699, 1708

HABITAT MANAGEMENT

22, 281, 313, 373, 438, 524, 598, 662, 959, 1051, 1329, 1397, 1515, 1647, 1686

HABITAT

35, 36, 181, 313, 373, 438, 551, 598, 662, 695, 945, 1051, 1208, 1243, 1283, 1284, 1290, 1329, 1354, 1397, 1515

FORAGING BEHAVIOR

598, 695, 985, 1329, 1354

BREEDING, NESTING

190, 393, 538, 547, 580, 598, 605, 646, 695, 749, 845, 903, 904, 907, 928, 1130, 1196, 1243, 1290, 1354, 1492, 1588, 1699, 1708

NEST AND ROOST TREES

281, 580, 1208, 1283, 1290, 1686

NEST BOXES AND HOUSES

281, 695

BIOLOGY, ECOLOGY, LIFE HISTORY 117, 551, 778, 928, 945, 987, 1087, 1515 RELATIONS WITH OTHER FAUNA 190, 1472, 1699, 1708 IDENTIFICATION, TAXONOMY 695, 1196, 1206, 1208, 1243, 1284, 1290

EASTERN BLUEBIRD, SIALIA SIALIS

SUMMARY

9, 12, 22, 57, 60, 79, 81, 95, 129, 168, 181, 187, 236, 251, 281, 282, 313, 438, 440, 539, 551, 586, 598, 599, 605, 608, 617, 619, 623, 641, 666, 686, 687, 695, 771, 778, 883, 894, 899, 900, 902, 939, 945, 981, 985, 995, 1071, 1114, 1115, 1136, 1143, 1182, 1183, 1191, 1192, 1196, 1204, 1205, 1206, 1208, 1220, 1222, 1223, 1224, 1225, 1226, 1227, 1228, 1229, 1234, 1243, 1251, 1257, 1283, 1284, 1290, 1293, 1323, 1329, 1348, 1353, 1354, 1397, 1435, 1472, 1508, 1512, 1515, 1526, 1527, 1596, 1616, 1638, 1653, 1664, 1677, 1678, 1686, 1687, 1704, 1705, 1706, 1707, 1708, 1709, 1710

HABITAT MANAGEMENT

9, 22, 236, 281, 282, 313, 438, 440, 586, 598, 1329, 1397, 1508, 1515, 1596, 1686, 1706, 1707, 1710

HABITAT

60, 181, 236, 282, 313, 438, 551, 586, 598, 605, 695, 945, 981, 1136, 1208, 1243, 1251, 1283, 1284, 1290, 1329, 1348, 1353, 1354, 1397, 1508, 1515

FORAGING BEHAVIOR

60, 440, 598, 608, 695, 985, 1224, 1225, 1234, 1329, 1353, 1354, 1710

BREEDING, NESTING

12, 57, 79, 95, 168, 187, 282, 598, 599, 605, 608, 617, 623, 641, 666, 686, 687, 695, 771, 894, 899, 900, 902, 939, 995, 1182, 1183, 1191, 1192, 1196, 1204, 1205, 1222, 1225, 1227, 1229, 1243, 1257, 1290, 1323, 1353, 1354, 1435, 1472, 1512, 1526, 1527, 1596, 1616, 1653, 1704, 1705, 1706, 1708, 1710

NEST AND ROOST TREES

281, 440, 1208, 1222, 1283, 1290, 1686, 1709, 1710

NEST BOXES AND HOUSES

9, 129, 281, 440, 598, 605, 695, 995, 1183, 1204, 1472, 1704, 1708, 1710

BIOLOGY, ECOLOGY, LIFE HISTORY

778, 945, 985, 1136, 1143, 1220, 1223, 1226, 1228, 1293, 1515, 1638, 1678

RELATIONS WITH OTHER FAUNA

251, 894, 1436, 1616, 1687

TERRITORY

1114, 1330, 1526, 1596

DISTRIBUTION, POPULATION DENSITY, STATUS 778, 883, 1071, 1114, 1115, 1196, 1284, 1664, 1677, 1678

IDENTIFICATION, TAXONOMY

695, 1196, 1206, 1208, 1243, 1284, 1290

WESTERN BLUEBIRD, SIALIA MEXICANA

SUMMARY

60, 62, 123, 201, 212, 259, 265, 272, 395, 400, 486, 505, 508, 617, 664, 684, 731, 738, 747, 928, 944, 981, 985, 991, 1024, 1038, 1044, 1046, 1047, 1167, 1196, 1197, 1208, 1284, 1326, 1351, 1353, 1354, 1421, 1439, 1504, 1520, 1565, 1596, 1663, 1664, 1667, 1668, 1708, 1710

HABITAT MANAGEMENT

201, 400, 486, 664, 1024, 1046, 1047, 1520, 1596, 1663, 1667, 1710

HABITAT

60, 62, 123, 201, 212, 259, 265, 272, 400, 486, 684, 731, 738, 747, 944, 981, 1038, 1044, 1046, 1047, 1167, 1208, 1284, 1326, 1353, 1354, 1421, 1439, 1504, 1520, 1565

FORAGING BEHAVIOR

60, 265, 395, 944, 985, 1167, 1326, 1353, 1354, 1520, 1710

BREEDING, NESTING

201, 212, 505, 617, 731, 928, 1024, 1196, 1353, 1354, 1520, 1565, 1596, 1708, 1710

NEST AND ROOST TREES

991, 1208, 1351, 1520, 1708, 1710

NEST BOXES AND HOUSES

508, 1708, 1710

BIOLOGY, ECOLOGY, LIFE HISTORY

928, 1326, 1520

RELATIONS WITH OTHER FAUNA 1708

TERRITORY

259, 1596

DISTRIBUTION, POPULATION DENSITY, STATUS 62, 212, 684, 731, 747, 1044, 1197, 1284, 1421, 1664, 1668 IDENTIFICATION, TAXONOMY 1196, 1208, 1284

MOUNTAIN BLUEBIRD, SIALIA CURRUCOIDES

SUMMARY

49, 65, 123, 201, 212, 231, 272, 305, 376, 395, 400, 426, 432, 441, 508, 575, 591, 617, 664, 684, 731, 738, 747, 781, 827, 858, 894, 920, 928, 985, 991, 1019, 1023, 1024, 1038, 1046, 1047, 1071, 1094, 1111, 1128, 1166, 1180, 1196, 1208, 1243, 1246, 1284, 1326, 1327, 1349, 1353, 1354, 1402, 1421, 1443, 1504, 1510, 1511, 1520, 1524, 1565, 1596, 1617, 1664, 1666, 1667, 1698, 1708, 1710

HABITAT MANAGEMENT

49, 201, 400, 664, 1019, 1023, 1024, 1046, 1047, 1520, 1596, 1666, 1667, 1710

HABITAT

123, 201, 212, 272, 305, 376, 400, 684, 731, 738, 747, 920, 1038, 1046, 1047, 1094, 1111, 1128, 1166, 1180, 1208, 1243, 1284, 1326, 1327, 1353, 1354, 1402, 1421, 1443, 1520, 1565, 1617, 1698

FORAGING BEHAVIOR

65, 395, 858, 985, 1326, 1327, 1353, 1354, 1510, 1520, 1710

BREEDING, NESTING

201, 212, 231, 426, 432, 575, 591, 617, 731, 781, 827, 928, 1019, 1024, 1196, 1243, 1349, 1353, 1354, 1510, 1511, 1520, 1524, 1565, 1596, 1708, 1710

NEST AND ROOST TREES

991, 1019, 1023, 1208, 1511, 1520, 1708, 1710

NEST BOXES AND HOUSES

508, 1708, 1710

BIOLOGY, ECOLOGY, LIFE HISTORY 928, 1326, 1520

RELATIONS WITH OTHER FAUNA 1708

TERRITORY

259, 1596

DISTRIBUTION, POPULATION DENSITY, STATUS 62, 212, 684, 731, 747, 1044, 1197, 1284, 1421, 1664, 1668 IDENTIFICATION, TAXONOMY 1196, 1208, 1284

STARLING, STURNUS VULGARIS

SUMMARY

34, 55, 201, 212, 265, 346, 356, 373, 374, 421, 432, 441, 519, 559, 560, 586, 605, 644, 695, 731, 743, 752, 755, 758, 778, 782, 783, 853, 928, 931, 945, 985, 994, 995, 1077, 1094, 1117, 1136, 1161, 1180, 1196, 1206, 1208, 1236, 1283, 1243, 1305, 1354, 1456, 1463, 1472, 1485, 1504, 1508, 1519, 1520, 1550, 1565, 1596, 1624, 1625, 1628, 1647, 1663, 1664, 1708, 1709

HABITAT MANAGEMENT

34, 201, 373, 586, 1508, 1520, 1596, 1647, 1663

HABITAT

34, 201, 212, 265, 346, 373, 519, 586, 605, 695, 743, 755, 945, 1094, 1136, 1180, 1208, 1283, 1284, 1354, 1504, 1508, 1520, 1565, 1624, 1625

FORAGING BEHAVIOR

265, 559, 560, 695, 985, 1354, 1485, 1520

BREEDING, NESTING

201, 212, 421, 432, 519, 605, 695, 731, 752, 783, 928, 931, 994, 995, 1196, 1236, 1305, 1354, 1472, 1565, 1596, 1708

NEST AND ROOST TREES

994, 1208, 1236, 1283, 1463, 1520, 1708

NEST BOXES AND HOUSES

994, 695, 758, 995, 1472, 1708

BIOLOGY, ECOLOGY, LIFE HISTORY

55, 432, 778, 853, 586, 945, 1077, 1136, 1520

RELATIONS WITH OTHER FAUNA

356, 644, 853, 931, 994, 1472, 1519, 1550, 1708

TERRITORY

1596

DISTRIBUTION, POPULATION DENSITY, STATUS 22, 374, 441, 731, 778, 782, 1094, 1117, 1161, 1196, 1284, 1456, 1628, 1664

IDENTIFICATION, TAXONOMY 695, 1196, 1206, 1208, 1284

CRESTED MYNA, ACRIDOTHERES CRISTATELLUS

SUMMARY

346, 731, 961, 1196, 1208, 1284, 1342, 1354, 1565, 1624

HABITAT

346, 731, 961, 1208, 1284, 1354, 1565, 1624

FORAGING BEHAVIOR

1354

BREEDING, NESTING

731, 1196, 1354, 1565, 1624

NEST AND ROOST TREES

1208

BIOLOGY, ECOLOGY, LIFE HISTORY

1342

DISTRIBUTION, POPULATION DENSITY, STATUS

731, 1196, 1284, 1342

IDENTIFICATION, TAXONOMY

1196, 1208, 1284

PROTHONOTARY WARBLER, PROTONOTARIA CITREA

SUMMARY

118, 181, 372, 374, 438, 440, 598, 605, 695, 778, 945, 1196, 1206, 1243, 1282, 1284, 1329, 1397, 1405, 1515, 1607

HABITAT MANAGEMENT

372, 438, 440, 598, 1329, 1397, 1515

HABITAT

181, 372, 438, 598, 605, 695, 945, 1243, 1282, 1284, 1329, 1354, 1397, 1405, 1515

FORAGING BEHAVIOR

440, 598, 695, 1329, 1354, 1405

BREEDING, NESTING

598, 605, 695, 1196, 1243, 1354, 1405

NEST AND ROOST TREES

440, 1282

NEST BOXES AND HOUSES

440, 695

BIOLOGY, ECOLOGY, LIFE HISTORY

118, 778, 945, 1515, 1607

DISTRIBUTION, POPULATION DENSITY, STATUS

374, 778, 1196, 1284

IDENTIFICATION, TAXONOMY

695, 1196, 1206, 1243, 1284

LUCY'S WARBLER, VERMIVORA LUCIAE

SUMMARY

118, 265, 617, 928, 945, 1196, 1284, 1354, 1565, 1670

HABITAT

265, 945, 1284, 1354, 1565, 1670

FORAGING BEHAVIOR

265, 1354

BREEDING, NESTING

617, 928, 1196, 1354, 1565

BIOLOGY, ECOLOGY, LIFE HISTORY

118, 928, 945

DISTRIBUTION, POPULATION DENSITY, STATUS

1196, 1284

IDENTIFICATION, TAXONOMY

1196, 1284

HOUSE SPARROW, PASSER DOMESTICUS

SUMMARY

201, 212, 257, 265, 346, 441, 551, 586, 605, 617, 730, 731, 778, 928, 946, 947, 948, 949, 1078, 1080, 1113, 1150, 1196, 1198, 1208, 1235, 1284, 1290, 1333, 1354, 1463, 1472, 1490,

1520, 1617, 1624, 1625, 1708, 1709

HABITAT MANAGEMENT

201, 586, 1520

HABITAT

201, 212, 257, 265, 346, 551, 586, 605, 730, 731, 945, 1208, 1284, 1290, 1354, 1520, 1565, 1617, 1624, 1625

FORAGING BEHAVIOR

265, 1150, 1354, 1520

BREEDING, NESTING

201, 212, 257, 605, 617, 731, 928, 947, 948, 949, 951, 1113, 1150, 1196, 1235, 1290, 1333, 1354, 1520, 1565, 1624, 1707

NEST AND ROOST TREES

1208, 1290, 1463, 1520, 1708

NEST BOXES AND HOUSES

1708

BIOLOGY, ECOLOGY, LIFE HISTORY

551, 778, 928, 945, 946, 949, 1080, 1198, 1490, 1520

RELATIONS WITH OTHER FAUNA 1472, 1708

DISTRIBUTION, POPULATION DENSITY, STATUS 212, 441, 551, 730, 731, 778, 1196, 1284 IDENTIFICATION, TAXONOMY 1196, 1208, 1284, 1290

EUROPEAN TREE SPARROW, PASSER MONTANUS

SUMMARY

78, 119, 140, 441, 551, 695, 756, 778, 945, 985, 1094, 1196, 1206, 1208, 1243, 1284, 1290, 1354, 1439, 1520, 1565

HABITAT

551, 695, 945, 1094, 1208, 1243, 1284, 1290, 1354, 1439, 1520, 1565

FORAGING BEHAVIOR

985, 1354, 1520

BREEDING, NESTING

119, 695, 1196, 1243, 1290, 1354, 1520, 1565

NEST AND ROOST TREES

1208, 1290, 1520

NEST BOXES AND HOUSES

695

BIOLOGY, ECOLOGY, LIFE HISTORY

551, 778, 945, 1439, 1520

DISTRIBUTION, POPULATION DENSITY, STATUS

78, 441, 551, 756, 778, 1094, 1196, 1284

IDENTIFICATION, TAXONOMY

695, 1196, 1206, 1208, 1243, 1284, 1290

HOUSE FINCH, CARPODACUS MEXICANUS

SUMMARY

123, 201, 400, 403, 415, 551, 605, 695, 727, 747, 897, 928, 985, 991, 1087, 1094, 1166, 1196, 1208, 1284, 1290, 1326, 1347, 1421, 1520, 1565, 1617, 1624, 1654, 1663, 1664

HABITAT MANAGEMENT

201, 400, 1520, 1663

HABITAT

123, 201, 400, 403, 415, 551, 605, 695, 747, 1094, 1166, 1208, 1284, 1290, 1326, 1421, 1520, 1565, 1618, 1624, 1654

FORAGING BEHAVIOR

695, 897, 985, 1326, 1347, 1520

BREEDING, NESTING

201, 400, 605, 695, 727, 928, 1290, 1520, 1565, 1624

NEST AND ROOST TREES

991, 1208, 1290, 1520

NEST BOXES AND HOUSES

695

BIOLOGY, ECOLOGY, LIFE HISTORY

551, 928, 1326, 1520

DISTRIBUTION, POPULATION DENSITY, STATUS 403, 551, 747, 1087, 1094, 1196, 1284, 1421, 1664

IDENTIFICATION, TAXONOMY

695, 1196, 1208, 1284, 1290

GEOGRAPHIC INDEX

Asia

CHINA

1586

JAPAN

593, 1119

Africa

RHODESIA

531

SOUTH AFRICA

228, 362

ZAMBIA

1198

Australia

299, 1325

Europe

CZECHOSLOVAKIA

1416, 1555, 1556

FINLAND

554, 570, 571, 572, 648, 929, 1256

FRANCE

311

GERMANY

41, 124, 142, 215, 217, 338, 390, 460, 491, 578, 637, 1041, 1131, 1212, 1213, 1314

GREAT BRITAIN

264, 266, 454, 459, 465, 467, 507, 540, 692, 886, 888, 889, 962, 963, 964, 965, 966, 994, 1131, 1175, 1203, 1238, 1303, 1465, 1490, 1674, 1675, 1695

IRELAND

692

ITALY

218, 254

NETHERLANDS

649, 849, 1538, 1602, 1684

NORWAY

1304

POLAND

225, 559, 560, 1081, 1273

SOVIET UNION

27, 139, 446, 695, 697, 877, 896, 1122, 1239, 1363, 1376, 1378, 1404, 1436, 1486, 1585

SPAIN

247, 1097, 1174

SWEDEN

188, 422, 658, 659, 732, 758, 1137

SWITZERLAND 1306 **WEST GERMANY** 629, 630, 638, 854, 855, 931 **YUGOSLAVIA** 880 North America 24, 74, 75, 78, 79, 88, 102, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 121, 147, 151, 155, 170, 191, 192, 195, 211, 213, 215, 216, 239, 245, 294, 344, 345, 346, 351, 385, 439, 469, 476, 515, 549, 556, 594, 613, 733, 734, 757, 778, 782, 783, 856, 857, 970, 1001, 1004, 1029, 1061, 1129, 1150, 1155, 1176, 1191, 1238, 1269, 1284, 1285, 1354, 1381, 1382, 1383, 1387, 1391, 1393, 1399, 1419, 1449, 1472, 1546, 1562, 1564, 1565, 1590, 1597, 1629, 1640, 1652, 1660 **BAHAMA** 413 **CANADA** 16, 162, 176, 234, 235, 405, 427, 428, 429, 431, 435, 457, 475, 490, 494, 601, 602, 766, 775, 879, 935, 1102, 1141, 1193, 1194, 1242, 1247, 1379, 1506, 1513, 1593, 1612 **Provinces** Alberta 76, 535, 680 British Columbia 97, 232, 384, 402, 425, 426, 431, 432, 551, 561, 667, 762, 961, 1035, 1091, 1110, 1111, 1117, 1189, 1430, 1478, 1612, 1624, 1711 Manitoba 53, 304, 305, 894, 908, 1070, 1071, 1530 New Brunswick 53, 243, 497, 516, 517, 1252, 1330 Nova Scotia 967, 968 Ontario 34, 53, 84, 105, 244, 246, 300, 304, 306, 470, 519, 660, 727, 883, 909, 910, 912, 988, 1034, 1089, 1593 Quebec 165 Saskatchewan 53, 304, 1241 **CUBA** 881 **MEXICO** 330, 864, 1072, 1088 **UNITED STATES** 12, 13, 16, 19, 29, 30, 47, 91, 99, 100, 101, 127, 132, 141, 152, 166, 240, 248, 287, 290, 325, 340, 353, 389, 406, 449, 450, 475, 485, 508,532, 539, 543, 547, 568, 604, 606, 613, 620, 624, 625, 626, 632, 639,643, 654, 666, 671, 709, 728, 746, 756, 892, 907, 911, 918, 935, 942, 955, 957, 985, 989,

1007, 1028, 1049, 1050, 1076, 1093, 1131, 1146, 1148, 1185, 1186, 1193, 1194, 1195, 1206, 1207, 1210, 1217, 1250, 1254, 1255, 1265, 1266, 1297, 1356, 1420, 1434, 1437, 1462, 1505, 1506, 1514, 1517, 1521, 1568, 1570, 1571, 1572, 1582, 1583, 1584, 1585, 1620, 1626, 1627, 1692, 1693, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1710, 1713

Northeastern United States⁵

4, 95, 98, 128, 168, 206, 237, 238, 440, 444, 524, 598, 605, 614, 655, 763, 764, 771, 808, 826, 859, 893, 933, 1030, 1115, 1133, 1169, 1199, 1226, 1230, 1251, 1277, 1293, 1306, 1315, 1316, 1348, 1371, 1372, 1373, 1375, 1396, 1476, 1515, 1522, 1523, 1539, 1622, 1625, 1634, 1657, 1673, 1679, 1680

Southeastern United States

5, 57, 58, 59, 92, 206, 275, 277, 280, 281, 282, 315, 324, 341, 355, 358, 359, 372, 377, 378, 402, 438, 511, 524, 533, 580, 597, 605, 634, 636, 653, 657, 662, 705, 706, 707, 711, 712, 713, 859, 869, 871, 913, 924, 925, 926, 930, 969, 1027, 1051, 1065, 1095, 1097, 1125, 1139, 1145, 1158, 1200, 1282, 1310, 1311, 1312, 1364, 1396, 1397, 1410, 1480, 1481, 1500, 1501, 1531, 1532, 1533, 1541, 1542, 1615, 1650, 1686

Southwestern United States

124, 156, 265, 272, 492, 493, 521, 652, 729, 738, 742, 743, 744, 745, 759, 760, 761, 768, 848, 865, 924, 971, 1057, 1065, 1088, 1157, 1173, 1177, 1187, 1188, 1208, 1243, 1288, 1380, 1452, 1453, 1496, 1497, 1504, 1547, 1550, 1569, 1613, 1666

Northwestern United States

39, 82, 83, 123, 134, 135, 136, 169, 175, 177, 193, 201, 202, 236, 255, 303, 318, 342, 343, 378, 400, 408, 488, 489, 492, 493, 521, 541, 585, 600, 617, 622, 669, 688, 691, 701, 738, 740, 759, 760, 761, 763, 764, 768, 809, 841, 842, 848, 852, 865, 943, 953, 973, 976, 991, 993, 1000, 1005, 1006, 1024, 1046, 1047, 1063, 1064, 1066, 1068, 1088, 1099, 1109, 1110, 1157, 1173, 1177, 1208, 1219, 1243, 1264, 1274, 1302, 1306, 1325, 1342, 1349, 1380, 1403, 1409, 1427, 1469, 1520, 1524, 1525, 1547, 1567, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1589, 1631, 1659, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1669

States

Alabama

21, 126, 695, 720, 1296

189, 379, 418, 496, 618, 1112, 1631, 1637

Arizona

37, 42, 50, 60, 61, 62, 149, 154, 241, 412, 462, 483, 484, 486, 487, 521, 523, 581, 627, 690, 724, 735, 944, 956, 979, 980, 981, 1038, 1042, 1072, 1082, 1083, 1184, 1216, 1262, 1305, 1351, 1352, 1353, 1460, 1654, 1670, 1681

Arkansas

283, 284, 726, 1130, 1395, 1526, 1527, 1610

California

70, 89, 143, 145, 148, 153, 184, 194, 242, 259, 260, 292, 316, 317, 331, 347, 380, 409, 416, 437, 452, 464, 477, 484, 498, 499, 500, 503, 505, 520, 541, 544, 548, 556, 558, 564, 567, 577, 607, 616, 765, 785, 786, 839, 840, 860, 862, 863, 885, 916, 917, 971, 972, 977, 978, 1025, 1052, 1053, 1054, 1055, 1056, 1062, 1072, 1110, 1116, 1121, 1126, 1132, 1142, 1159, 1160, 1167, 1236, 1249, 1281, 1295, 1298, 1313, 1318, 1326, 1331, 1332, 1362, 1418, 1456, 1487, 1513, 1518, 1581, 1659, 1697

⁵See map on page 79 for description of United States Regions.

Colorado

25, 26, 54, 56, 63, 64, 65, 93, 144, 150, 164, 307, 308, 574, 595, 651, 652, 689, 693, 696, 872, 873, 874, 875, 983, 997, 998, 1014, 1026, 1072, 1078, 1094, 1163, 1172, 1299, 1300, 1344, 1355, 1365, 1439, 1457, 1458, 1459, 1617, 1682, 1696

Connecticut

1015, 1253, 1329, 1638

District of Columbia

1411

Delaware

220, 1253, 1329

Florida

14, 60, 309, 310, 411, 413, 504, 538, 798, 801, 829, 847, 1087, 1100, 1123, 1260, 1552, 1650, 1651, 1653, 1671, 1688, 1700

Georgia

20, 86, 421, 663, 668, 748, 819, 829, 835, 1123, 1154, 1156

Idaho

3, 44, 45, 46, 208, 209, 210, 212, 219, 296, 320, 334, 335, 417, 458, 584, 590, 591, 592, 730, 747, 752, 753, 895, 896, 896, 920, 921, 927, 937, 982, 1043, 1044, 1128, 1161, 1162, 1165, 1166, 1168, 1181, 1232, 1319, 1320, 1321, 1358, 1440, 1464, 1482, 1536, 1554, 1574, 1577, 1580, 1594, 1628, 1668

Illinois

103, 179, 180, 185, 404, 530, 542, 546, 773, 776, 1114, 1179, 1253, 1261, 1329, 1467, 1477, 1672, 1678, 1696, 1701

Indiana

405, 562, 770, 845, 1253, 1329, 1507

Iowa

17, 18, 319, 387, 388, 619, 623, 703, 708, 717, 861, 986, 991, 1182, 1183, 1204, 1253, 1329, 1350, 1439, 1463, 1543, 1623, 1699

Kansas

257, 506, 702, 704, 710, 736, 750, 751, 754, 946, 947, 948, 949, 1178, 1258

Kentucky

178, 565, 566, 1032, 1253, 1329

Louisiana

14, 374, 473, 586, 945, 1103, 1308, 1483, 1498

Maine

53, 161, 297, 304, 386, 455, 456, 518, 522, 1039, 1048, 1144, 1253, 1292, 1329, 1461, 1475

Maryland

172, 173, 174, 298, 510, 787, 789, 790, 792, 793, 794, 795, 797, 799, 800, 801, 803, 804, 805, 816, 822, 823, 824, 825, 959, 1036, 1253, 1283, 1329, 1474, 1614, 1648, 1649

Massachusetts

51, 249, 251, 252, 253, 339, 356, 472, 513, 579, 641, 644, 678, 686, 687, 777, 850, 938, 939, 940, 941, 996, 1124, 1135, 1329, 1366, 1432, 1512, 1561, 1566, 1605, 1639, 1656

Michigan

15, 34, 171, 186, 197, 302, 326, 413, 420, 471, 481, 569, 717, 922, 952, 1106, 1108, 1134, 1211, 1218, 1220, 1221, 1228, 1229, 1253, 1328, 1329, 1444, 1455, 1508, 1516, 1591, 1606, 1607, 1608, 1609, 1611

Minnesota

52, 53, 71, 72, 73, 360, 396, 398, 474, 527, 528, 529, 551, 609, 661, 737, 780, 853, 898, 999, 1253, 1267, 1280, 1289, 1290, 1291, 1317, 1322, 1323, 1329, 1398, 1426

Mississippi

133, 291, 633, 719, 891, 1209, 1333, 1395, 1484

Missouri

129, 272, 443, 878, 936, 1031, 1074, 1086, 1201, 1253, 1329, 1677

Montana

41, 66, 67, 137, 219, 258, 407, 536, 573, 656, 739, 784, 954, 975, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1084, 1102, 1112, 1180, 1214, 1246, 1257, 1294, 1334, 1335, 1336, 1337, 1340, 1346, 1357, 1402, 1408, 1509, 1510, 1511, 1573, 1574, 1577, 1580, 1604, 1621, 1642, 1643, 1644, 1645, 1646

Nebraska

433, 492, 736, 749, 1502, 1548, 1549

Nevada

148, 153, 520, 616, 1654

New Hampshire

160, 304, 788, 791, 802, 803, 804, 806, 807, 810, 811, 812, 813, 814, 815, 816, 817, 820, 821, 823, 824, 825, 827, 831, 833, 1253, 1329, 1357, 1360, 1367, 1368, 1648, 1655, 1656

New Jersey

156, 501, 502, 610, 882, 1138, 1253, 1283, 1329, 1588, 1712

New Mexico

37, 61, 123, 522, 684, 685, 928, 1072, 1184, 1352, 1353, 1453, 1454

New York

1, 2, 40, 77, 80, 119, 182, 183, 222, 229, 230, 436, 451, 514, 534, 596, 597, 608, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 846, 884, 1109, 1100, 1151, 1152, 1153, 1253, 1263, 1295, 1329, 1338, 1339, 1446, 1447, 1448, 1515, 1677, 1683

North Carolina

276, 314, 599, 623, 663, 1104, 1105, 1107, 1203, 1253, 1270, 1405, 1470

North Dakota

53, 781, 1580

Ohio

68, 69, 87, 321, 365, 366, 367, 368, 369, 370, 371, 393, 434, 754, 772, 1002, 1103, 1253, 1286, 1329, 1519, 1587

Oklahoma

363, 1127, 1484, 1558, 1685

Oregon

6, 7, 8, 31, 32, 33, 122, 125, 163, 200, 203, 205, 296, 312, 327, 395, 399, 446, 460, 478, 480, 449, 506, 558, 563, 698, 699, 700, 974, 990, 991, 992, 1063, 1098, 1197, 1276, 1287, 1295, 1469, 1518, 1520, 1525, 1575, 1579, 1633, 1636, 1661, 1662

Pennsylvania

130, 372, 621, 722, 1058, 1059, 1067, 1253, 1270, 1329, 1343, 1491, 1544, 1559

South Carolina

96, 224, 357, 358, 580, 631, 663, 665, 673, 715, 828, 830, 832, 919, 951, 1451, 1471, 1618, 1691

South Dakota

37, 226, 227, 441, 736, 1096, 1427, 1534, 1535

Tennessee

22, 32, 35, 104, 131, 313, 899, 900, 901, 902, 903, 904, 905, 1033, 1233, 1234, 1253, 1616

Texas

157, 158, 159, 354, 374, 375, 382, 405, 413, 415, 615, 914, 915, 1012, 1013, 1037, 1072, 1149, 1324, 1345, 1359, 1360, 1378, 1450, 1485, 1540

Utah

49, 55, 382, 492, 647, 858, 984, 1073, 1236, 1421, 1422, 1423, 1424, 1425, 1431, 1438, 1466, 1654

Vermont

53, 304, 958, 1329, 1435

Virginia

42, 186, 273, 274, 278, 285, 286, 288, 289, 663, 950, 1074, 1253, 1283, 1295, 1468, 1471, 1687

Washington

6, 8, 28, 163, 167, 207, 267, 299, 401, 468, 478, 555, 605, 731, 843, 943, 973, 1069, 1164, 1245, 1325, 1440, 1489, 1520, 1525, 1578, 1595, 1661, 1662

West Virginia

190, 304, 582, 1329, 1415, 1492

Wisconsin

34, 94, 198, 293, 361, 406, 419, 587, 588, 589, 1010, 1011, 1231, 1253, 1257, 1275, 1329, 1417, 1515

Wyoming

3, 231, 302, 307, 333, 376, 575, 645, 736, 1327, 1509, 1510, 1511

South America

Guatemala

834, 838

Panama

838

Surinam

611

Trinidad

838

Unclassified as to Geographic Area

38, 77, 142, 214, 268, 279, 332, 336, 391, 392, 394, 397, 423, 448, 453, 482, 525, 526, 640, 716, 723, 767, 774, 818, 836, 854, 934, 960, 995, 1045, 1085, 1080, 1090, 1120, 1205, 1222, 1223, 1224, 1225, 1262, 1268, 1271, 1307, 1309, 1341, 1361, 1369, 1370, 1374, 1392, 1400, 1406, 1407, 1433, 1479, 1517, 1528, 1544, 1545, 1551, 1553, 1563, 1598, 1599, 1600, 1603, 1690, 1700





Fischer, William C., and B. Riley McClelland.

1983. A cavity-nesting bird bibliography—including related titles on forest snags, fire, insects, disease, and decay. USDA For. Serv. Gen. Tech. Rep. INT-140, 79 p. Intermt. For. and Range Exp. Stn., Ogden, Utah 84401.

Provides subject matter and geographic keyword indexes to more than 1,700 titles containing information about 86 species of cavity-nesting birds that inhabit North American forests. Related titles containing information about forest snags, fire, insects, disease, and decay are included.

KEYWORDS: cavity-nesting birds, forest snags, fire effects, insects, disease, decay







The Intermountain Station, headquartered in Ogden, Utah, is one of eight regional experiment stations charged with providing scientific knowledge to help resource managers meet human needs and protect forest and range ecosystems.

The Intermountain Station includes the States of Montana, Idaho, Utah, Nevada, and western Wyoming. About 231 million acres, or 85 percent, of the land area in the Station territory are classified as forest and rangeland. These lands include grasslands, deserts, shrublands, alpine areas, and well-stocked forests. They supply fiber for forest industries; minerals for energy and industrial development; and water for domestic and industrial consumption. They also provide recreation opportunities for millions of visitors each year.

Field programs and research work units of the Station are maintained in:

Boise, Idaho

Bozeman, Montana (in cooperation with Montana State University)

Logan, Utah (in cooperation with Utah State University)

Missoula, Montana (in cooperation with the University of Montana)

Moscow, Idaho (in cooperation with the University of Idaho)

Provo, Utah (in cooperation with Brigham Young University)

Reno, Nevada (in cooperation with the University of Nevada)

